A PLAGUE ON BOTH OUR HOUSES

HOW ANIMAL EXPLOITATION IS DRIVING PANDEMICS AND WHAT TO DO NEXT

ESTHER OUWEHAND

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Author photo: Mark Uyl
Translation: Textcase.nl
E-book production: Scribent.nl

ISBN 978 90 9034 565 9
NUR 740

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There is one thing stronger than
all the armies in the world,
and that is an idea whose time has come.

Victor Hugo

1

INTRODUCTION

Everything seemed to be going well. We were consuming more than the Earth could produce, yet supermarket shelves were fully stocked. We flew to the farthest reaches of the globe, our homes were crammed full of material goods, and the trees seemed to stretch out endlessly to the heavens. We thought we were invulnerable – but we're not. When the first coronavirus infection was confirmed in the Netherlands on 27 February 2020, our illusions were shattered. We are just as susceptible to viruses as animals, the Netherlands is no better prepared than China was, and once a new infectious virus breaks out, it is unstoppable.

The hospitals were flooded with patients. We were confronted with unprecedented, far-reaching measures. Restaurants and cafés were forced to close their doors, and nursing homes and schools were shut down. Everyone had to rein in their deep, natural need for social and physical contact indefinitely, with all the consequences it entailed for our mental well-being. The virus struck at the heart of who we are. We are social animals and we were suddenly forced to keep our distance in order to safeguard the health of both loved ones and complete strangers.

The coronavirus is sometimes referred to as the contrast fluid that exposed the vulnerabilities in our economy and our society. People with critical jobs turned out to be the lowest-paid people in the country. The efficiency approach in healthcare seemed to have achieved the exact opposite. And, that same approach turned our globalised economy into a rickety boat that would be dashed against the rocks with the first wave. The billions of euros that we had earned exploiting the Earth's resources were now used to bail out

the economy like water from a sinking ship. Our government was violently jerked out of its slumber, and governing parties suddenly started using terms that would have been unthinkable to them just a year before. Mark Rutte, the People's Party for Freedom and Democracy (VVD) party leader and Prime Minister, called the Netherlands a 'deeply socialist' country. He said that we should not create an 'apparent contradiction' between healthcare and the economy. The seeds of recognition that the healthcare sector deserved more than just applause and that the exploitation of vulnerable migrant workers was a disgrace that we could no longer ignore, were planted. These were hope-giving moments of new insight - but old habits die hard.

Structurally higher compensation for caregivers and healthcare professionals never materialised. Slaughterhouses exploiting migrant labour as their source of revenue were exempt from the coronavirus measures which industries that did not harm humans and animals did have to deal with. And, while the entire cultural sector crashed and burned, aeroplanes continued to fly to and from Schiphol Airport, and Minister of Finance Wopke Hoekstra (CDA, Christian Democrat party) transferred 3.4 billion euros to KLM, almost twice the market value of the entire Air France-KLM concern.

The new insights about the vulnerability of our economy and our society were drowned under wave upon wave of measures and by the endless discussions about those measures: their effects on the virus, calls to impose stricter or less strict measures, in addition to comparisons with other countries that were doing so much better or worse than we were. We were in the throes of the Dutch and other governments' fruitless attempts to try and stuff the virus back into Pandora's box. There was little discussion about the underlying causes of the virus.

After the Netherlands had been struggling with the coronavirus for six months, cabinet Rutte-III presented a historic Budget in September 2020. Tens of billions in support packages had already

been invested in propping up the faltering economy, keeping people employed and providing financial aid with loans. And there was no end in sight. During his speech presenting the Budget Memorandum, Wopke Hoekstra referred to the coronavirus as a 'Black Swan', a term coined by the Lebanese-American businessman and scientist Nassim Taleb to indicate unforeseen economic disaster.

'The story of the Black Swan, the story of unknown unknowns,' Hoekstra said, 'is about highly improbable events. They shouldn't be allowed to happen, but they do. A Black Swan cannot be predicted by any economic model. A Black Swan arrives out of the blue. And a Black Swan generally has a disruptive effect on society.'

The coronavirus is definitely disruptive, but it is certainly not a Black Swan. The coronavirus is a zoonotic disease, an infectious illness that is transferred from animals to humans just like past zoonotic infections such as SARS, HIV/AIDS, MERS, Ebola, the Zika virus, the Mexican flu and Q fever. The Dutch goat farming industry was responsible for the deaths of almost a hundred people. Thousands of people fell ill, more than five hundred of whom never recovered. People with a chronic case of Q fever belong to the high-risk group with regards to the coronavirus. For the second time in their lives, their health is under threat from an illness caused by the unhealthy relationship between humans and animals.

About 75 per cent of the new infectious diseases that have cropped up over the past ten years are zoonotic diseases. The World Health Organisation and the world's leading virologists had repeatedly pointed out that the number of epidemic outbreaks of zoonotic diseases had increased in recent years. It was just a matter of time before the next disruptive pandemic would strike. And the next. And the next. Shortly after Hoekstra had referred to the coronavirus as a Black Swan, two white swans were found dead in the province of Utrecht. They were infected with the dangerous variant of the bird flu. Bird flu is a recurring phenomenon in the Netherlands. Every year, a new variant of the bird flu is discovered at various

poultry farms. In 2003, the bird flu passed from poultry to humans, killing a veterinarian in the process. Virologists warn that it is only a matter of time before the bird flu will become infectious among humans. And they point out that the bird flu can mutate into a virus far more deadly than the coronavirus.

Animal diseases are an age-old phenomenon. And the fact that these diseases can be transferred to humans is also nothing new. What we should be concerned about are the degree to which that happens and the circumstances that allow this to occur. Before the virologist Marion Koopmans from the Erasmus MC became a household name in the Netherlands as one of the medical advisors to the Minster of Health during the COVID pandemic, she said in 2018: 'We think there's definitely something going on. We're seeing more frequent outbreaks, and they're getting bigger. That's because viruses are effectively the guardians of ecosystems. If we see rapid changes in the equilibrium of an ecosystem, you can bet your boots that a viral infection will appear somewhere.'

Professor of philosophy Marli Huijer recently added: 'Viruses influence the relationships between the various human and non-human species that inhabit the Earth. When a species, in this case the human species, claims a disproportionate share of resources at the expense of other species, the ecosystem undergoes changes that can have adverse consequences for the species… We need to develop a vision of how we can live responsibly with the many other species on which the human species is dependent.'

Just when we've started to express all our worries and desires in monetary terms, the overexploitation of the Earth by western consumption societies is being felt. Not only had we apparently forgotten that the natural environment has intrinsic value, but also that humans are an inextricable part of the natural environment. And a small and vulnerable part at that: humankind represents a mere 0.01 per cent of all life on Earth, but it is so preoccupied with itself that it completely ignores the other 99.99 per cent on which it depends. The Intergovernmental Science-Policy Platform on

Biodiversity and Ecosystem Services (IPBES) has warned us of the possible extinction of one million plant and animal species. We are living in the sixth extinction event – the first to be caused by human activity. The climate crisis will derail us if we do not take the urgent measures required to get back on track. Year after year, heat and drought records are being broken, and the ice caps continue to melt faster than climate scientists' worst predictions. And, just before the coronavirus pandemic struck, we watched in horror as untameable forest fires raged through Australia. The rapid changes in the equilibrium of ecosystems Marion Koopmans referred to are audible, visible, and tangible every day. In the year that will be marked in history as the year that the coronavirus paralysed our country, we experienced the worst heatwave in the Netherlands ever.

But as the disruption of ecosystems grew, so did resistance. In 2019, the Dutch government's nitrogen policy was wiped off the table by the Council of State: the government was doing too little to protect the environment. Shortly before the pandemic, the High Council confirmed the earlier verdict in the historic Urgenda Climate Case: the government was doing too little to protect the public from the disruptive consequences of global warming. Across the globe, massive and continued demonstrations calling for climate action broke out, as people acted out in civil disobedience and demanded a break with the neoliberal way of thinking and a political system that kept catering to the largest polluters at the expense of a healthy future for humans and animals. The growing resistance and the fact that governments are being reproached by the courts are a response to rapid changes in our living environment.

The shift was already looming. Politicians too were becoming increasingly uncomfortable with the consequences of the neoliberal course they had been following for years or supporting without any real resistance. Even the VVD suddenly admitted that the free market's invisible hand left the masses out in the cold, while shareholders were rolling in money. The finest moment of clarity came in 2019 from the Minister of Economic Affairs and Climate

Policy, Eric Wiebes (VVD). Confronted with the latest figures on greenhouse gas emissions in the Netherlands, which were actually higher than the figures on paper, Wiebes tried to convince the Dutch NOS news agency that everything would be all right and that the cabinet was on schedule with cutting back on CO2 emissions. One journalist countered with: 'But hasn't economic growth contributed to increased emissions levels?' 'Yes, that did cause a setback,' Wiebes admitted.

The VVD had come a long way to make such a statement, but it indicated the beginning of recognition that economic growth was not the solution but the problem.

We undoubtedly live in times of change. In an essay that he wrote shortly before the coronavirus crisis, the historian Philipp Blom stated: 'For a historian, this is a fascinating time to be alive. We are seeing a break between eras. We have reached a tipping point in history, and we do not know on which side the coin will land. We are stuck in an economic model that is destined to fail. Either it ends in catastrophe with new pandemics, war, no access to resources, you name it, or we start heading in a new direction. But one thing is certain; the tide of history will turn.'

The tide has turned. But the tipping point came from an unexpected source. Because although we had been warned, many of us hadn't seen the coronavirus coming.

You start out knowing next to nothing about a new virus that drives the world into a pandemic state. How the contamination spreads, how infectious the virus is, which functions in the human body it affects, how ill the virus makes us, how deadly it is for vulnerable groups, and who those vulnerable groups are. By definition, coping with a new infectious disease to which no one is immune will be a chaotic process with significant collateral damage.

The one thing that was certain from the very beginning was that if humans had left animals alone, we wouldn't have been faced with a

coronavirus crisis.

We need to do everything we can to make sure this doesn't happen again.

This book is about that 'everything'.

2

WE ARE THE DEADLY VIRUS

It is estimated that in the years 1918 and 1919, between twenty million and a hundred million people died of the Spanish flu.

More than one million people succumbed to the Asian flu between 1957 and 1958.

In 1968, a million died from the Hong Kong flu.

In 2009, the Mexican H1N1 swine flu struck, killing between 123,000 and 203,000 people.

What did all those pandemics have in common besides their devastating effect on human lives?

The Spanish flu was probably transmitted from poultry to humans and pigs. The Asian flu was a hybrid of bird and human flu viruses, as was the Hong Kong flu.

The Mexican H1N1 swine flu was a hybrid of pig viruses, bird viruses and human flu viruses. In the beginning, everyone referred to it as the ‘swine flu’.

An infectious disease that is transmitted from animals to humans is called a zoonotic disease. And, it has been confirmed that coronavirus is an example of such a zoonotic disease. Which animal was the source, which animal contributed to the transmission of the disease and how the first infection occurred, still needs to be established. Most probably, the virus had initially been transmitted from a horseshoe bat via another animal at an exotic animal market in Wuhan, where it contaminated the first human. The ‘intermediary’ could have been a Sunda pangolin, but it could also be the case that animals from China’s fur farming

industry played a role. Today, almost two million people worldwide have died from the consequences of the coronavirus.

Animals and humans share a lot; the capability to feel pain and fear, happiness or contentment. We also share the ability to maintain social relationships with our own sort. And we share a susceptibility to the same pathogens. Ron Fouchier – one of the key figures in the field of virology according to the Royal Netherlands Academy of Arts and Sciences – pointed out that the bird flu could mutate into a version that could be transmitted from animals to humans in just a few steps. If that happens, we will potentially be dealing with a zoonotic disease with a mortality rate ten times that of the coronavirus.

Even before the coronavirus crisis struck, virologists warned that the risks of a pandemic occurring had been increasing gradually over the past few decades. 'We are making things far too easy for viruses,' virologist Marion Koopmans said in 2018 at a lecture for the Universiteit van Nederland, an online platform featuring talks from professors. 'Viruses are the guardians of ecosystems. And we are dealing with huge changes that contribute to the spread of infections. One of those changes is the rise of megacities, particularly across Asia, with slums where people have limited access to proper hygiene. The enormous increase in the livestock industry, with factory farms often situated near these cities, also plays a contributing role. And then you have two of those factors: lots of people and lots of animals, cramped together in a small area.'

Koopmans said that virologists were often told that the hidden dangers were primarily lurking in other parts of the world, such as in Asia and Africa, but not in Europe. 'Why worry?' she was often asked. That assumption was wrong. 'We have all become one giant village. Today, problems that occur on the other side of the world can arrive here on the next flight into Schiphol Airport. The Netherlands is one of the most densely populated countries in the world, one of the regions with the most farm animals in any given

space. You read about the mega-stalls in the newspapers and how we are encroaching on each other's space. You can see that, particularly in the Netherlands, the conditions are there to facilitate the spread of infections.'

According to the American physician and author Michael Greger, the 1918 flu epidemic was the result of an 'unnatural experiment' similar to today's factory farms. In his book *How to Survive a Pandemic* (2020), Greger wrote that when the Spanish flu initially developed in the trenches of the First World War, the infection could easily transfer from soldier to soldier. Soldiers lacked food and drinking water and were deprived of sleep, and they were wet, cold, and wounded. Their immune systems were worn out from the horrors of war, and they lived practically on top of each other, day and night. The result was evolutionarily inevitable – one of the deadliest viruses in human history. It started out with muscle aches and fever in the victims, and ended with bleeding from the eyes, ears and mouth, followed by the vomiting of blood, blisters on the skin, and lungs that turned into jelly. According to Earl Brown, Professor Emeritus of Virology and Biology at the University of Ottawa, a virus had never killed so many people in so short a time. It raged across the globe twice in one year before disappearing because of a lack of hosts. Between twenty million and a hundred million people died of it.

The 'accidental experiment' that had taken place in the trenches of the First World War was repeated in the 1950s, this time with chickens. When the demand for chicken and eggs started to increase and large-scale incarceration in small areas became the norm, chicken farms became infected, through contact with ducks, with exceptionally lethal viruses.

Each year, 1.5 billion pigs, 3 billion ducks and no fewer than 60 billion chickens are slaughtered, the three most commonly killed land animals worldwide. As a result, the world is confronted with a significant increase in animal diseases that are sometimes transferred to humans, taking their lethal cargo with them. 'You

can see it throughout agriculture. If you want to read the infectious disease textbooks, they keep getting thicker and thicker,' Brown told the Canadian magazine *The National Observer* in 2020 when he informed them of the relationship between the livestock industry and the increase in zoonotic diseases. "Whether the next pandemic is a coronavirus or flu doesn't really matter." Brown outlines how humans have become increasingly vulnerable to epidemics over the last century due to urbanisation and modern medicine. Moreover, the animal farming industry came onto the scene and grew explosively. 'The livestock industry and the increased susceptibility of humankind to viruses are two powder kegs that we've set right next to each other. Modifications to society that respect the inevitabilities of viral evolution are something to consider,' Brown continues, 'but we must also dismantle the bomb that is factory farming in all its forms. We can all try to be more conscious.' It's a shame that where animal consumption is concerned, emotions usually gain the upper hand, and the subject is highly politicised. 'But if you want to talk practically, eating vegetables is safer than growing chickens.'

In 2014, Olga Jonas travelled to NATO Headquarters in Brussels on behalf of the World Bank. Jonas was a senior fellow at the Harvard Global Health Institute and an expert in pandemic risk mitigation. She had 33 years of experience working as an economist at the World Bank, and she was responsible for the worldwide prevention of bird flu and other pandemics. Because NATO took pride in promoting international peace, safety and stability, Jonas was convinced that the organisation would be interested in her ideas on preventing pandemics. Jonas couldn't think of very many more serious threats to worldwide stability than a pandemic. Unfortunately, NATO had nothing to offer her. Well, almost nothing. Isolating areas, clamping down on food riots, distributing body bags and transporting the dead – that was what NATO was offering.

Disappointed, Jonas continued her journey to the Netherlands, the country with the world's densest livestock populations and the only

country with a Party for the Animals in national government. Perhaps there would be interest in what she had to say in our country? But the Netherlands also had little interest in the dangers of illnesses that could migrate between humans and animals.

The Party for the Animals was the only party she spoke with where her plea for prevention rather than combating after the fact didn't fall on deaf ears. And the only party that had been trying to bring prevention to everyone's attention for years.

What can we learn from the outbreaks in 1918 and 2020, *The Harvard Gazette* asked Jonas in May 2020. 'We have had some global public health emergencies since then [1918], but they have been less prominent: HIV/AIDS since the 1980s, SARS in 2003, and the 2009 H1N1 pandemic influenza (Mexican flu). What's interesting is that all these events have caught authorities and the general public by surprise, but scientists who have been studying pandemics were not surprised. Unfortunately, many governments, even in developed countries, have been reluctant to plan ahead because after the event, it doesn't seem urgent anymore. [One] lesson we should always remember is that governments should listen to experts and scientists who know how to best prevent the spread of infectious diseases.' Then she added drily: 'What's ironic is that for the last 15 years, nobody paid attention to what experts were saying, and over the past three months, everybody wants to hear from experts and finally cares about what we have to say.'

Can we learn something from the pandemics that have plagued us in the past and current century? In 2007, when the Party for the Animals first gained a seat in the House of Representatives, an outbreak of Q fever had stricken the Netherlands. Q fever is an infectious bacterial disease transmitted from sheep and primarily goats to humans, which is what happened in the provinces of Noord-Brabant and Limburg. We can and must learn from that major zoonotic disease outbreak in our own country and the committee that evaluated the subsequent approach. We can also learn much from the dozens of bird flu outbreaks in the

Netherlands and the zoonotic outbreaks of SARS, MERS, Ebola, and the Zika virus in other parts of the world. We can learn from our mistakes.

And from faulty judgement. In 2008, the Ministers of Health and Agriculture (Ab Klink and Gerda Verburg, both members of the CDA) answered parliamentary questions with confidence, saying that 'there is no reason to assume that animal diseases are increasingly responsible for human infections.'

If we genuinely want to learn, we will do well to follow Olga Jonas' suggestions. In a time when opinions on social media are increasingly accepted as hard truth, when podcasts from conspiracy theorists draw full audiences while the lecture halls remain forcibly empty, when *#ophef* (outcry) angles for clicks, and countless people find themselves trapped in what Dutch comedian Arjen Lubach calls the *fabeltjesfuik* (lit. fable fyke) or 'web of lies', perhaps it's more critical than ever to keep listening to what the experts have to say. Thankfully, we still have experts around.

In the early stages of the coronavirus crisis, the Dutch newspaper *Trouw* interviewed Thijs Kuiken, virologist and professor at the Erasmus University in Rotterdam, about earlier zoonotic disease outbreaks. 'SARS probably jumped from a small beast of prey, the masked palm civet, in a market in Southeast Asia. MERS reached humans via dromedaries sold at markets in the Middle East. Once you start bringing humans and many different animals together on such a large scale in the marketplace, you're almost asking for it. A naturally flexible virus only has to make small adjustments to conquer an entirely new niche. And then the boundaries between species are effortlessly crossed, with all the consequences that that entails.' Kuiken's final conclusion: 'If we don't learn to look at viruses from an ecocentric viewpoint, so from an environmental perspective, instead of from a human standpoint, it is just a matter of time before the next outbreak.'

Not egocentric, but ecocentric: that is the main lesson to be learned from COVID-19 and its many predecessors. If we don't want to end

up in another pandemic crisis like the coronavirus crisis, we will have to start changing things. Starting with ourselves. Modern humans are anything but ecocentric. In fact, humans themselves behave like a deadly virus for all other life on Earth. Since 1970, the average size of mammal, bird, amphibian, reptile, and fish populations has decreased by 68 per cent due to human activity. In the Living Planet Report, the World Wildlife Fund illustrates how intensive agriculture, the livestock industry, deforestation and animal trading have eradicated animal populations and their habitats. Three-quarters of the Earth's ice-free land surface has been significantly damaged, most of the oceans are polluted, and more than 85 per cent of water-rich habitats have been lost. With the destruction of ecosystems, a million species (500,000 animal and plant species and 500,000 insect species) will be threatened with extinction in the next century.

Through the study of fossils, researchers can calculate the natural extinction rate of animal species. That rate was, on average, two extinctions per 10,000 species every hundred years. Over the past century, both the extinction figures and that average rate increased significantly. 198 vertebrate species have entirely disappeared since 1900. The Carolina parakeet, the Barbary lion, the golden toad, the Caspian tiger, the dusky seaside sparrow: all extinct. The California grizzly bear often appears as the symbol of the U.S. state of California in artwork for bands and on shirts and mugs when in fact, this bear has been extinct since 1924.

Researchers wonder what the numbers would have looked like if there weren't any humans on the planet. Then there probably would have been just 9 species that were definitely or probably extinct instead of 477. 'No matter how you look at it, it is going to take a long time for mammals to recover,' explains Matt Davis, a palaeontologist with Aarhus University's Centre for Biodiversity in A Changing World. Together with ecologists Søren Faurby and Jens-Christian Svenning, Davis calculated that it would take three to five million years for biodiversity to recover.

Anyone who hasn't seen the hair-raising documentary *Dominion* from Australian director Chris Delforge should definitely watch it. In December 2018, the Party for the Animals wanted to show the documentary on a large open-air screen on the Square in front of the House of Representatives. However, the mayor at that time, Pauline Krikke, felt that our screen was too large for the 'shocking images for shoppers, who should also be given a chance to avoid the images.' (At the same time that we wanted to show the film, bonfires were being built that were big enough to put entire residential areas in jeopardy elsewhere in the city. The residents of those areas couldn't avoid anything, but Krikke did allow the bonfires; apparently, they weren't too shocking.)

Dominion illustrates the countless ways in which humans systematically exploit and kill animals. It is not easy to watch, but the undercover documentary shows what is happening – even as you're reading this – to animals behind the scenes in, for example, the meat production industry. The document ends with staggering figures. The filmmakers calculated that 619 million people were killed by war throughout the entire history of mankind. We kill the same number of animals every three days. And that's not including fish and other marine life.

So yes: we are a deadly virus. Our relationship with other beings on Earth is sickening. Not only in 2020 at an animal market in Wuhan but every day, every year, across the globe – and the Netherlands is no exception. Anyone recognising the close relationship between humans, animals and the environment will also know that we are acting against our own interests with this behaviour. In December 2019, UN General Secretary António Guterres highlighted the unmitigated climate change resulting from human activity. He spoke of humanity waging 'a war' against nature, one he calls 'suicide'. 'Humanity has been waging war against the planet for decades,' he said, 'and now it's striking back.' We must end this war by being humble. Nature can easily survive without humanity, but humanity cannot survive without nature. If we continue to stick to our anthropocentric thinking and continue

to see man as the measure of all things, new crises will follow. But if we let go of the illusion that humans are superior to the environment and other animals, there may be a chance that the situation will improve.

3

INTRINSICALLY (UN)MOTIVATED

On 18 March 2020, two days after Prime Minister Rutte's (VVD) televised speech, the House of Representatives debated heatedly about the coronavirus. It was the third of what was to become a series of dozens of plenary COVID debates, debates about the virus itself, the flooded ICUs, the horrifying situation in nursing homes, the Minister of Justice's wedding, and questions such as which sectors should be considered vital or not.

Everyone had seen the images of Chinese hospitals, the people dying in hospital hallways, the grief and fear among the nursing staff. But behind the safety of our sturdy dykes, the prevalent feeling was: these things happen in China, not in Europe. Until those same terrible scenes started appearing in hospitals in Northern Italy during the first few weeks in March. On 19 March, the day after the House debate, the Italian army transported hundreds of dead bodies out of the heavily hit town of Bergamo. Upon seeing these horrifying images, Olga Jonas would undoubtedly have thought back to her NATO visit in 2014. But on that day, the prevalent feeling was still: apparently, this can also happen in Europe, but it's still Italy. Not us.

In the weeks that followed, the ICUs in the province of Noord-Brabant in the Netherlands were filled beyond capacity. The Netherlands went into lockdown. In June, a reconstruction from the NRC newspaper indicated that the Brabant hospitals had indeed been overwhelmed. Only a lightning-quick upscaling of IC capacity and German aid provided a narrow escape from the catastrophe that had taken place in Italy and China. Wuhan and Bergamo

seemed more like the Netherlands than we had realised.

The debate about the measures to be implemented now that we were dealing with an outbreak of a zoonotic infection was a critical one. The government and parliament both carry responsibility for acting on uncertain estimates (the scientific knowledge about the new virus was severely limited at the time) and carefully considering the need to limit the spread of the virus on the one hand and the impact of measures on society on the other hand. The debates were primarily about how the government planned to tackle the virus and what parliament thought of those plans. But I also felt it was my job to not stop there, to draw attention to the root causes of the crisis, a crisis that could launch us into another pandemic before we had recovered from this one.

The debate on 18 March 2020 was the debate in which Geert Wilders (Freedom Party, or PVV) clearly demanded that the government announce an immediate and total lockdown. Wilders wanted to protect the Dutch people against a deadly virus; that much was clear. I asked Wilders if he agreed that the world couldn't afford to face the dangers of a new zoonotic disease and whether he thought that we should take a good look at our own livestock industry to that effect.

Wilders looked at me, furious. 'Will you stop that! Go discuss that in a room somewhere with Representative Graus (the PVV spokesman for agriculture, EO), but not with me and not here.' We exchanged some questions and answers as it goes with interruptions, but Wilder's message remained: not now, Ouwehand.

Later during that debate, I asked the same questions of the chairman of the CDA, Pieter Heerma, and the healthcare spokesman of the VVD (the chairman, Klaas Dijkhoff, lives in Brabant and wasn't allowed to travel to The Hague). Heerma gratefully hid behind Wilders' words. 'I would like to say, as Representative Wilders has already stated, that there are plenty of other opportunities to discuss the future of the livestock industry.'

Hayke Veldman from the VVD also deferred the question. To when? To 'future debates'. Which was when we would have 'plenty of time to discuss this. And yes, that means that we also have to consider the bigger picture.'

At that moment, the bigger picture was that viruses arise from our relationship with animals and the environment. The picture included SARS and the H1N1 swine influenza, which was initially called swine fever because of its origins in the pig farming industry. And the insistent warning from scientists for the intensive livestock industry in the Netherlands, which included plenty of pigs and chickens, that it wasn't a question of *if*, but *when* a mutation will occur. In the past, in back rooms with agriculture representatives, the CDA and VVD, in particular, were blind and deaf to this message. The interests of public health were always sacrificed to the economic interests of the livestock industry. And now that we have experienced the havoc a zoonotic disease can wreak, we had to postpone the debate to sometime in the future. 'Not now' means 'not ever'. We simply cannot afford to do that.

Of course, the Ministry of Health, Welfare and Sport had more than enough on their plates dealing with the current epidemic, and it was impossible to give them even more tasks. But other ministries didn't have to increase ICU capacity, get a hold of scarce protective equipment, or set up a testing network from scratch. And precisely because the healthcare system and the Ministers of Health were utterly swamped, the initial reactions for Minister Schouten of Agriculture and Minister Kaag for Foreign Trade should have been: 'We are deeply shocked, and we will do everything in our power to make sure that another virus doesn't strike again.' When that reaction failed to appear, Prime Minister Rutte and the healthcare Ministers Bruno Bruins and Hugo de Jonge should have given a clear and binding order to their colleagues, Schouten and Kaag: 'The livestock industry, the global trade in animals, and the deforestation that comes with it puts the entire world at risk. Stop dawdling and get cracking to update your policy to drastically mitigate the risks of new zoonotic diseases developing.' Rutte did

not give that order.

It would have been better anyway if factory farming had been abolished 25 years earlier. Although the coronavirus came from an animal market in China, the livestock industry in Europe was soon shown to contribute to the severity of symptoms with people who were infected with COVID. Research in Italy showed that low air quality was responsible for the severe impact of COVID-19 when it struck. Studies from the World Bank and the Vrije Universiteit of Amsterdam concluded that a 20 per cent increase in particulate matter in the air led to a doubling of the number of infections.

In July 2020, the British University of Birmingham stated that it had 'compelling proof' that there was a correlation between the high number of coronavirus patients in the Dutch provinces of Noord-Brabant and Limburg and the air pollution in the region. As the news site *1Limburg* summarised it: 'The British researchers were curious because the high number of coronavirus infections, hospital admissions and deaths were mostly found in south-east Brabant and northern Limburg. They noticed that the worst air pollution was not found in Dutch cities but in certain areas in Limburg and Brabant. According to the researchers, one of the causes was the intensive livestock industry. The south-eastern provinces are home to more than 63 per cent of the country's 12 million pigs and almost half of its 101 million chickens. The manure from all these animals produces high levels of ammonia. These particles often make up a significant portion of particulate matter in air pollution. The British study has shown that a slight increase in the long-term exposure to polluting particles caused a 10 per cent increase in the number of infections and hospital admissions and a 15 per cent increase in the number of deaths.

A few months later, the Dutch newspaper *Algemeen Dagblad (AD)* published results from a study carried out by the Max Planck Institute in Mainz that established the same link between COVID deaths and air quality. 'Of Dutch COVID deaths, about 19 per cent can be attributed to poor air quality. That comes down to about

2200 deaths. The physical condition of these victims was already poor due to air pollution. This was one of the reasons why the virus proved fatal for these patients.'

In the AD article, Jos Lelieveld, a Dutch professor in atmospheric chemistry and COVID advisor to the German government, was consulted. Lelieveld argued: 'Residents in areas with lower air quality often suffer more from chronic conditions such as COPD, lung infections, cancer and cardiovascular disease. These are typical conditions that overlap with a stronger adverse reaction to the COVID-19 virus.'

Lelieveld was convinced that air pollution played a vital role in the number of COVID deaths. 'Numerous studies have established this link, and it is a solid link. It shows the importance of clean air for human health. I urge everyone to take that into serious consideration and for the political front to do something about it. We already know from earlier studies that people living in areas densely populated with livestock are at greater risk of contracting lung infections. The idea is that particulate matter released into the atmosphere damages the mucous membrane in the lungs and that people become more susceptible to other infections. That may also be the case with COVID-19.'

While a fierce debate was taking place in The Hague about how we could keep healthcare accessible with the admission of so many coronavirus patients, hospital admissions would have been much lower in the first place if their living environment wasn't polluted by the livestock industry in particular. But the livestock industry was off the table as far as the debate was concerned, as were the other ways in which intensive agriculture harmed public health. On 15 April, the cabinet announced that they would invest extra money into the agricultural sector to supplement regular support measures. First, a 600 million euro subsidy was freed up almost exclusively for the horticultural industry, with an additional 50 million euro for potato growers. This was twice as much as was allocated to the cultural sector, which had to make do with 300

million euros. Culture does not pose a threat to public health (on the contrary); the horticultural industry does. The pesticides used for growing flowers and bulbs are linked to Parkinson's disease, various forms of cancer and the emergence of resistant moulds. The Netherlands is ranked second on the list of countries that use the most pesticides in Europe. And the horticultural sector beats them all. Making that support package of 600 million euros conditional – for example, by demanding a significant reduction in pesticide use – was something the cabinet did not want to think about. 'Come on, we're not going to do that.'

In December 2020, the science television programme *De Kennis van Nu* (Today's Knowledge) revealed that a quarter of the people that ended up in intensive care with COVID-19 were infected with a resistant mould. Anyone who has contracted this mould and then becomes infected with COVID-19 has a significant risk of becoming seriously ill. The mortality rate for these patients is almost twice as high as for patients without this mould. Half of these patients that end up in the ICU die. According to medical microbiologist Ed Kuijper, it was not news that patients with other severe conditions were more vulnerable to the mould, 'but that it could cause a viral infection at such a large scale is worrying, to say the least.'

In 2010, scientists had warned that the excessive use of anti-mould agents could ensure that the Aspergillus mould would become increasingly resistant to hospital treatments. The intensive agricultural sector was explicitly highlighted as one of the culprits. The anti-mould therapies used in hospitals are almost identical to the fungicides (azoles) farmers sprayed their bulb fields with. The Party for the Animals immediately called on the government to limit the use of these azoles. The government didn't deem it necessary and continued to refuse, even when the PvdA (Dutch Labour Party) was admitted to the cabinet and the Agriculture, Nature and Food Quality portfolio was passed on to State Secretary Sharon Dijksma. In 2013, we were supported by the majority of the House of Representatives. We submitted a motion to the government to ban five dangerous fungicides from agricultural use,

and that motion was passed. More than seven years down the line, only two of the five fungicides have been taken off the market. The current Minister Schouten failed to do anything about it either.

That fact alone says it all; even when parliament decides through a democratic vote that the use of pesticides and fungicides must be limited to protect public health, the government allows short-term agricultural economic interests to prevail. The consequences of such inaction are even more painful now that we have ended up with a pandemic crisis and people seem to be more vulnerable when infected by COVID. When I asked VVD Chairman Klaas Dijkhoff, in light of the report in *De Kennis van Nu*, whether the VVD was prepared to restrict the use of these dangerous agricultural fungicides, it was apparent that a new awareness was dawning. 'I was actually – and I will have to eat my words now – quite proud of myself that I had spent the entire summer reading up on the zoonotic disease phenomenon, but I sense that I have quite a bit more homework to do before the next session. I simply don't know enough about these substances to change policy right now,' he said. It was an eloquent and honest answer from Dijkhoff. But it also illustrated how lightly his party had taken the health risks from intensive agriculture in the past.

In that respect, Rutte's performance at the beginning of the coronavirus crisis was striking. The VVD Prime Minister announced on a Sunday afternoon at half-past five that all restaurants and cafés had to close their doors within half an hour, and all kinds of other business had to cease their activities – in the interests of protecting public health. We heard him say that our health and the economy were not each other's antithesis but that they were opposite sides of the same coin. And 'public health comes first': it wasn't the first time we heard the phrase, but it had never been true before.

As it turns out, it was only a half-truth. Undoubtedly, now that an acute health crisis had presented itself and the Netherlands witnessed hospital hallways crammed with patients, Rutte's VVD

was prepared to take drastic economic measures. But as soon as the dangers to public health lose their immediacy and become less tangible than a boom of patients deprived of a hospital bed, the cabinet doesn't follow through. The way is paved once more for polluting industries, fast food chains, intensive agriculture and the alcohol, tobacco and food industries. The VVD is particularly opposed to creating an adequate preventive policy. They call it 'patronising'. It is a smart formulation, but prevention is not about patronising citizens. It is about restricting corporations that grow rich off making people unhealthy, and then diverting the costs of such practices to society as a whole.

Olga Jonas, who received absolutely no response from NATO following her plea for prevention, stresses the importance of taking action before things go wrong. 'Hopefully, COVID-19 will push the world to increase and sustain investments in public-health systems; it will be the most productive investment on behalf of mankind.' The cost-benefit ratio of prevention is far higher than spending money on treating symptoms and other emergency measures after the fact. Making sure that people don't fall ill is actually the political version of a no-brainer. One-third of healthcare costs are related to an unhealthy lifestyle and diet. Healthy people are less susceptible to COVID complications and are more resistant to many other illnesses. But there are more arguments besides the rational economic calculations by economists such as Jonas.

A cabinet that imposes far-reaching measures on society, restricts civil liberties, and even calls on people to deny their intrinsic need for physical contact should instantly be aware of its fundamental responsibility to do everything in its power to protect public health to the best of its ability. And that means going against the interests of fast-food chains, the food industry and the polluters.

In May, two months after the coronavirus crisis struck, we asked the Minister of Health, Hugo de Jonge (CDA), what was happening with the plans to improve the Dutch population's basic health and the prevention policy. We received an answer two weeks later: the

prevention policy was delayed. Because of COVID-19. The reply should have been: the prevention policy is being scaled up. Because of COVID-19.

The coronavirus crisis, at that moment one of the two largest crises during his entire premiership, gave rise to a Prime Minister who sometimes reacted irritably to the people who trivialised the coronavirus and did not want to keep to the measures (‘Shut up,’ Rutte said to a group of singing and cheering football fans). I can understand Rutte’s irritability. But I also thought: well, where have we seen this behaviour before? The football fans were just as deaf to Rutte’s pleas as his cabinet was to the warnings about pesticides, low air quality or the unhealthy food sector. If you set a bad example, people will follow.

On 30 June 2020, Wilders finally voted in support of the Party for de Animals’ motion to launch a plan of attack against zoonotic diseases. The motion was passed with a large majority. The cabinet had now been tasked by the House to significantly mitigate the risk of developing new zoonotic diseases. With the passing of this motion, the House of Representatives explicitly recognised the risks the livestock industry poses in this respect. Only VVD, CDA and Forum for Democracy voted against the motion.

In September, we saw how Prime Minister Rutte became increasingly anxious about the Dutch people’s poor compliance with coronavirus measures. He was appealing to the ‘intrinsic motivation’ in all of us to safeguard the health of others. He understood that we desired more freedom, but the health of our grandparents was more important. However, we’re still waiting for a cabinet that’s intrinsically motivated to put the health of its people above the business models of McDonald’s and Coca-Cola.

4

CULPABLE HOMICIDE

On 28 March 2020, *The Guardian* published a lengthy article on whether factory farming was responsible for the coronavirus. The conclusion was, in short: it actually is. There's at least a causal relationship. How we treat animals across the globe, not only in China but also in the west and, particularly in the Netherlands, lies at the heart of zoonotic disease outbreaks.

The reasons for this were extensively discussed in a book published in 2016 titled *Big Farms Make Big Flu*. The author is the American evolutionary biologist Rob Wallace, advisor for organisations such as the American Centers for Disease Control and Prevention (CDC) and the UN Food and Agriculture Organisation (FAO). Wallace explains that chickens, turkeys and other animals in factory farms are packed together in inconceivably large numbers. And that those billions of animals are almost identical genetic clones of each other. Chickens have been bred for decades to meet industry standards such as disproportionally large breasts (the breast is the most profitable part of the chicken), exceptionally fast growth (making them 'ripe for the slaughter' in less time), and plenty of 'lean meat' on the bones. In other words, the ideal factory-farmed broiler, aptly referred to as the *plofkip* (bursting chicken) in Dutch.

Suppose a virus ends up in such a large group of genetically identical animals. In that case, it can rage through the population without finding any resistance from the genetic variation that usually complicates the spread of such a virus. Both experimental research and empirical observation have concluded that this process potentially results in an acceleration in the virus's virulence, the degree to which it is harmful to its host. If it then transfers to

humans, the threat it poses is larger than life. Although it may not feel that way, Wallace says, we've been lucky so far. We have been given a chance to re-evaluate our lifestyle choices – because 'chicken isn't cheap if it costs a million lives.'

Zoonotic diseases. For many people, this must have seemed an exotic term for many years. When I brought it up during the first COVID debates, there was some discomfort in the so-called K section of the chamber, where the ministers were seated. Many epidemics start out with a zoonotic disease. The animals can't do anything about it. Animal diseases are an age-old phenomenon. But they become a real threat when people catch, breed and kill animals. In Europe in the past 20 years, an infectious disease has jumped from animals to humans twice via the livestock industry (the mink farms are not included here as they will be discussed later). Both of those outbreaks occurred here, in the Netherlands, the country with the world's densest livestock population. In 2003, a thousand people fell ill from the bird flu. That year, veterinarian Jan Bosch died from complications from a bird flu infection.

This was followed by the next dramatic event: Q fever. This was in 2007, the year that the Party for the Animals became a junior faction in parliament after the historic elections of 22 November 2006. We had our hands full with questioning the House, putting all the ignored and papered-over problems resulting from our relationship with animals in the Netherlands back on the agenda, dragging up unappetising facts and reports that government officials from the Ministry of Agriculture had managed to stuff away in deep drawers, and calling that same minister to account for the damage the livestock industry is causing to humans, animals and the environment. We were – and still are – dead serious about our mission, but we were admittedly having fun shaking the tree of a ministry that had been taking advantage of its power base for decades. The agro-lobby determined policy and that same lobby, driven by conservative agricultural parties that included representatives from the livestock industry, carried the majority in parliament. The triumvirate that was agricultural policy (farmers'

lobby, farmers' parties, and the Ministry of Agriculture) seemed inviolable. But then again, there had never been any serious opposition in the first place. Marianne Thieme, founder of the Dutch Party for the Animals and then party leader, and I were determined: we were going to raise hell.

And we did. The House was in constant consternation about our creative application of parliamentary rights ('I'm going home if this is how we're going to do things from now on!' one representative from D66, the Social Liberal party, said), our proposals ('Are we really going to have a roll-call vote on a motion calling on the removal of eel from the House of Representatives' menu?' one PvdA representative asked), and the uncomfortable truths we brought into the mix.

The Minister of Agriculture at the time, Gerda Verburg (CDA), appeared on the Dutch talk show *Paul & Witteman* to argue that the Party for the Animals had gone too far by claiming that the livestock industry was one of the main contributors to climate change. She would show them by ordering the University of Wageningen (WUR) to refute the claims made in our climate documentary *Meat the Truth*. After half a year of poring over reports and breaking their heads around the issue, the WUR could only conclude that our calculations were correct. I haven't heard the minister admit to that on television, though.

It didn't take long before complaints started coming in about the number of parliamentary questions we were raising: two additional government officials had to be called in just to answer all our questions about our failing agricultural policy. Verburg and her partner in crime in the House (Joop Atsma, another CDA representative) tried to throw at us that what we were doing was downright scandalous. Two extra government officials? 'Is that all?' we fired back at them. We had expected at least five additional officials to supplement all those thousands of other Ministry of Agriculture officials - and we thought we were being modest. There was work to be done, after all, and quite a bit too.

Our strategy was to shake up existing political patterns and systems through expressive politics to pave the way for change.

How much we needed that change became painfully clear when it turned out that the government - more specifically, the Ministry of Agriculture - disrupted the lives of people to such an extent that those lives were utterly derailed. On Wednesday, 29 August 2007, our policy officer, Natasja Oerlemans, stormed into my office with a message from *Omroep Brabant*, a local television channel. In Herpen, family doctors reported increasing numbers of patients with severe but inexplicable health symptoms who were coming into the practice. They had lung infections, suffered from a high fever and sometimes collapsed without any warning. The doctors were at a loss: what kind of mysterious condition was this? It was completely unclear what was making these people so ill. Until they discovered that all those different patients had one thing in common: they all lived close to a goat dairy farm. Q fever, *Omroep Brabant* concluded. The Party for the Animals had a new job for those two extra officials that the Ministry of Agriculture had hired.

Q fever is a bacterial infection that can be transmitted from goats and sheep to humans. And that was what had happened in the area surrounding goat dairy farms in Brabant. People living in the area walked or cycled unsuspectingly past these goat farms and were infected through the air with *Coxiella burnetii*, the bacteria responsible for Q fever. In 2007, the number of Q fever infections started to rise quickly, but the government didn't intervene until 2009. Around 2011, the Q fever epidemic was past its peak. By then, more than 100,000 people had been infected.

Initial assumptions were that about 25 people had passed away from the bacteria responsible for the Q fever infection, but that number had to be adjusted upwards repeatedly. In 2018, at least 95 human deaths were recorded. More than 500 people are still suffering from the dangerous and chronic Q fever variant today.

The American army warned back in 2000 about the dangers of Q fever as a biological weapon. *Coxiella burnetii* - the bacteria

responsible for Q fever - is subject to even more stringent safety restrictions in laboratory research than anthrax, for example. As a biological weapon, the American health authorities have put Q fever in the same category as *E. coli* and cholera.

Between the late 1990s and the 2000s, the number of dairy goats had more than doubled: from 150,000 to 350,000 animals. Despite outbreaks of Q fever between 2007 and 2009, with severe illness and death as a result, the Dutch government refused to intervene. Initially, field mice were believed to be the cause of the outbreak. Former Minister Verburg felt that implementing a notification requirement for businesses with an increased risk of spreading Q fever was going too far. She 'didn't feel like all the hassle'. In 2008, a transport ban on goats was considered but ultimately not carried through. By then, more than 1000 people had fallen ill. In late 2009, over two years after *Omroep Brabant's* distressing discovery, Verburg told the House: 'Much is still unclear about Q fever. I'm talking about the bacteria, how lethal it is, how it spreads, and so forth. Experts still have a lot of questions about the best way to stop this outbreak.' And then she said: 'You can only take measures when you know which measures are effective. To which I will add that they need to be proportional. You can take many measures, of course, but as long as you don't know what the measures are or what they should be aimed at, any policy will be uncertain to succeed.' Proportional is the magic word as far as the interests of the livestock industry are concerned. Whatever the damage caused by factory farms to humans, animals and the environment, combating that damage is apparently never 'proportional'.

In 2012, the National Ombudsman, Alex Brenninkmeijer, set up a study to investigate whether the Q fever epidemic victims were entitled to financial compensation from the government. The ministers at the time, Gerda Verburg and Ab Klink (the Minister of Health) were heard under oath. The Ombudsman wanted to know why Verburg and Klink did not implement a breeding ban for goats in September 2009. This may have drastically reduced the spread of Q fever. They hadn't, but they had decided a few months later to

kill over 62,000 goats. The goat farmers were directly compensated for their losses: 34 million euros, plus 21 million euros to pay for the resulting decrease in milk production. The victims received nothing. The Ombudsman also wanted to know why Verburg refused to announce which dairy farms were infected. Members of the public could have protected themselves by staying away from the farms. Verburg had always said that making the precise locations known 'didn't provide added value for public health'.

In a 2020 reconstruction, *Omroep Brabant* made clear that in the first two years of the Q fever crisis, the only interests that counted were economic interests. 'After the Q fever outbreak in 2007, all was quiet once more, but the epidemic repeated itself less than a year later. The Netherlands is unique in that respect: other countries find the source and neutralise it. Here, we dawdle and have a Ministry of Agriculture that denies that there is a problem in the first place. The public image of the goat dairy farm industry seems to take precedence over public health.'

Roel Coutinho, the former director for the Centre for Infectious Disease Control from the National Institute for Public Health and the Environment, or RIVM, confessed to the investigative journalism platform *Follow the Money* that the financial interests of the goat dairy industry tipped the scales. 'The Ministry of Agriculture has never admitted it out loud, but it's a logical approach to, for each measure, weigh the benefits for public health against the costs for the sector and society at large. Back then, this was discussed among the Directorate-Generals of the Ministries of Health and Agriculture; the ministers themselves were not involved. And the Ministry of Agriculture was showing passive resistance. Time and time again, we were asked the question of whether the goats really were responsible.'

In late 2009, over two years after the initial Q fever outbreak in Herpen, Verburg ordered the slaughter of goats. The number of goats in the Netherlands had risen explosively in the years preceding that decision. The Van Dijk committee responsible for

investigating the Q fever tragedy in 2010 later made minced meat of the Ministry of Agriculture's approach. The report indicated that the Ministry of Health was in support of an entirely different approach at the time: 'For the Ministry of Health, the knowledge that goats and sheep were the most common source of Q fever outbreaks amongst humans was sufficient basis for the initial interventions,' Van Dijk wrote. 'The Ministry of Agriculture continued to point out a lack of scientific evidence supporting a causal relationship (…). That both ministries stuck to these principally different approaches had a delaying effect on implementing measures and sent a 'contradictory' message to the outside world and their communication to stakeholders.

Van Dijk was highly critical of their strategy of waiting until new evidence turned up. The indications that this lethal bacteria originated from the goat dairy industry piled up after 2007. 'The Ministry of Agriculture's approach was led for a long time by the perception that *Coxiella burnetii* bacteria are present in the environment at large and that that single fact sufficiently explained the human Q fever infections. This hypothesis no longer proved tenable when in the years after 2007, increasing numbers of Q fever cases among humans presented themselves in comparison to previous years, something for which this hypothesis had no explanation.'

The committee was also damning in condemning the Ministry's failure to publicise the locations of infected businesses. 'The argument of corporate privacy cannot take precedent over a proportional approach to public health issues, and certainly not in an approach based on the precautionary principle.' The consequences of protecting dairy farmers' interests: people near goat farms were at great risk but didn't know it and couldn't do anything to protect themselves.

In late 2009, Marianne Thieme reproached Minister Verburg's performance as an act of 'culpable homicide'. That kicked up quite a bit of dust. Until then, the Ministry of Agriculture's tactic of

sowing doubt and 'waiting' for new evidence had worked well. With the exception of the Socialist Party (SP), we received practically no political support and the weighty words used by Marianne were met with incomprehension. The Party for the Animals' questions were the reason why goat farmers' children were being bullied at school, they replied. It was a targeted intimidation ploy.

Nonetheless, the Party for the Animals was not entirely left in the cold. Dick Veerman, editor-in-chief of the online magazine *Foodlog*, firmly stood behind Marianne's words. 'Thieme is absolutely right. The specialised knowledge from experts in the field was not taken seriously. Any advice was brushed aside. Now panic has broken out, and the situation has spiralled out of control when all this could initially have been avoided.'

However, very little was learned from these political lessons. After the 2009 intervention, the breeding and transport ban on goats and sheep was quickly lifted again in 2010 by Minister Verburg so that the empty stables could be filled up once more. In 2012, the Minister of Health, Edith Schippers (VVD), saw no reason to curb the continued growth of the dairy goat industry. 'Monitoring' would mitigate the risks. Because of the political choices made by both officials, the goat population in the Netherlands increased from 350,000 to 400,000 between 2008 and 2012. In 2020, that number had risen to over 630,000, six times as many goats as at the start of this century.

The Van Dijk committee submitted a series of suggestions to prevent a repeat of the Q fever fiasco. The most important recommendation: act according to the precautionary principle. Don't wait endlessly for scientific evidence, but intervene when there is a strong indication that public health could be endangered by a virus originating in the livestock industry. And the second recommendation: make sure that the Ministry of Health has the power to overrule when it comes to dealing with zoonotic diseases. That is a term that is not used much outside of The Hague, but it is

an important one nonetheless. It means that the Ministries of Agriculture and Health should both be involved in combating a zoonotic disease, but that from now on, it should be crystal clear who has the final say: the Ministry of Health. It may sound like a subtlety, but in practice, it's a matter of night and day – and it's a critical difference. In times of health crisis, the officials representing a ministry that serves the general interests of its people should have a greater say than the officials from the Ministry of Agriculture. From time immemorial, those officials have only ever been interested in serving the livestock industry's commercial interests.

People who deal with the Ministry of Agriculture for the first time are often surprised at how deeply the interests of the ministry and the 'sector' are intertwined. Roel Coutinho, the former director of the Centre for Infectious Disease Control, had lost that naivety very quickly as the 2000s drew to an end. According to Coutinho, the industry's interests were always the elephant in the room during discussions with the Ministry of Agriculture regarding Q fever.

Gert van Dijk, after whom the 2010 committee was named, sighed at the beginning of the coronavirus crisis during an interview with *De Groene Amsterdammer* that nothing had changed in the past ten years. 'When we submitted our report, everyone was very enthusiastic. But the recommendations were never carried through. I have the impression that they thought: do we have to make all this official? Surely we'll come to an agreement among ourselves next time. We have been lucky that there hasn't been a new major Q fever outbreak since.

Van Dijk added: 'Corona has shown us: once it's there, we're all too late. You must be prepared. And we're not. You never know where or when a new outbreak will take place. And that's why you need to be perfectly clear beforehand about who is responsible for tackling the issue. But the responsibilities are still divided between the Ministries of Agriculture and Health. So if another outbreak occurs, we're back to an ugly tug-of-war between the interests of farmers

and residents with vague health complaints."

In the same month that this interview with Van Dijk was published, Noord Brabant was given the dubious honour of having the first coronavirus infection found in mink. It was also the world's first case of COVID in the livestock industry. And it had to be in the Netherlands, of course.

5

PANIC AT THE MEAT FACTORY

The biggest question has always been: which interest takes precedent when there are issues in the livestock and meat industry?

During the first wave of the coronavirus crisis, our gaze was often focused on Germany. Initially, when things went well and later, when things went wrong. And the first place it all went wrong was in the slaughterhouses.

'Almost 1,300 coronavirus infections have been recorded at the largest meat-processing plant in Germany, Tönnies,' news channel BNR announced on 22 June 2020. 'This outbreak exposes the terrible labour conditions of employees. The German political scene demands an explanation.' Correspondent Derk Marseille explained why the corporation was under such heavy fire. 'Tönnies works with a lot of subcontractors. They had no idea who was working in their production halls.' According to Marseille, a large portion of the employees, in particular workers from Romania and Bulgaria, had to continue working throughout the coronavirus crisis. 'It was never apparent what the working conditions were like at the slaughterhouses, but the coronavirus outbreak has made clear how abysmal labour conditions are.' Keep slaughtering until everyone works themselves to death, owner and billionaire Clemens Tönnies must have thought. After the Tönnies outbreak, the German state of North Rhine-Westphalia felt it needed to implement drastic measures in and around the town of Gütersloh. Hundreds of thousands of people were forced into lockdown.

In the Netherlands too, things started to go seriously wrong in slaughterhouses. On 13 April, the first employee at Vion in Boxtel passed away from COVID. At one point, a quarter of the employees

at Vion in Groenlo tested positive all at once. The Regional Safety chairman ordered the slaughterhouse to close its doors immediately on 25 May. Two days later, police hermetically sealed off another Vion slaughterhouse, in Apeldoorn, after the business failed to comply with COVID regulations. Various media reported that employees who had been sent home from Vion in Groenlo earlier that week were now working at the slaughterhouse in Apeldoorn. No quarantine for employees of the largest slaughterhouse in the Netherlands. As cool as you please, Vion added fuel to the fire of COVID hotbeds across the country.

And this is not only a Dutch, German or European story. A correspondent from the Dutch newspaper NRC, Bas Blokker, visited a village in Ohio for one of his podcasts because of 'one of the more surprising manifestations of this epidemic, namely that every town with a large meat-processing factory in the US has a relatively high concentration of COVID cases.' The village that he visited, Columbus Junction, was a scene straight from a Western movie where 'everything revolved around meat', 270 people who worked at the meat-processing giant in the village had been infected. Blokker says in his podcast: 'The general degree of contamination among meat factory employees is 18 per cent, compared to 0.3 per cent in all of America.'

Society keeps its slaughterhouses hidden on anonymous industrial estates whenever possible. The intercity train running from Den Bosch to Eindhoven whizzes past the biggest slaughterhouse in the Netherlands in Boxtel, but unsuspecting train travellers will not recognise it as such. On the other side of the building, the only clue to what goes on in this giant hall is the long rows of waiting lorries stuffed with pigs.

'If slaughterhouses had glass walls, everyone would be vegetarian.' It is an iconic quote that Paul McCartney repeated once more in a film for the animal rights organisation PETA. The ex-Beatle was referring to the gruesome end animals meet in slaughterhouses. But the slaughterhouses are hell for people too.

Just like most people don't want to know what happens to the animals in slaughterhouses, so do most people turn away from the fate of the employees. Every day, dozens of vans drop migrant workers from Central and Eastern Europe off at the gates of the slaughterhouses, meat-processing factories that are practically identical to any other 'real' factory, except for the death, blood and stench everywhere. Working in slaughterhouses is dangerous because of the sharp knives. It is monotonous as you repeat the same actions over and over again for hours at a stretch. And it is harrowing as you hear the death cries of the animals.

There was one positive side to the COVID infections in the slaughterhouses. Suddenly, the Dutch newspapers were filled with stories about the migrant workers who worked in those death factories every day. The central theme: slaughterhouse employees are exploited, manipulated, stripped of their rights, and silenced. They are practically invisible to the rest of society. On 27 May, NRC published the story of 38-year-old Romanian Viorel. He ended up at Van Rooi Meat in Helmond (more on this corporation later) through a friend of a friend. 'Ears' were to become Viorel's speciality. NRC described how Viorel tackled dead pigs with his knife: 'With his left hand, he grabs the pigs head as he uses his right hand to cut away part of the ears with a special electric knife. And that about seven times per minute, hundreds of cuts every hour, thousands of ears every day.' But that only lasted a week, Viorel explains. 'A colleague wanted to make a cut but made a mistake. He cut right into my hand. There was a lot of blood.' Viorel had no health insurance, and the temp agency paid for the stitches in his hand with cash. It wasn't long before Viorel was asked to come back to work. He refused because of the four stitches in his hand. 'I could pack my bags and leave immediately,' they said.

NRC also wondered why so many Romanians had recently come to work in slaughterhouses. 'We see that Poles are being replaced by Romanians because Polish workers have learned to stand up for their rights', explains Larisa Melinceanu from the Barca foundation

that helps Eastern Europeans who are in trouble: ‘Poles have learned how the system works, so Dutch temp agencies look for a new vulnerable group to exploit: the Romanians.’

640 million animals are slaughtered in the Netherlands every year: 1.7 million animals every day, 1,200 per minute, 20 per second. During an average COVID debate in the House of Representatives, half a million animals are killed. With these extreme numbers, it is impossible to monitor the slaughtering process. And it isn’t monitored: the Dutch Food and Consumer Product Safety Authority (NVWA) simply has far too few people to keep an eye on such numbers. And of the people who do work there, several are not even prepared to, or worse, are prevented from doing so by their superiors when they want to take action against a slaughterhouse that doesn’t comply with the regulations. The years of distress calls from whistle-blowers were confirmed in 2019 by a study conducted by 2Solve, a private investigative research company. You would expect the NVWA to undertake some rigorous spring cleaning as a result and that all the managers and inspectors that refused to enforce the regulations would be out of a job, but nothing has changed yet.

What also hasn’t changed is the government’s stance in relation to the meat industry. From day one of the coronavirus crisis, the cabinet refused to hear the alarm bells about the situation in slaughterhouses. At Vion in Boxtel, sample testing brought to light that a sixth and later even a third of the employees had been infected. Wobine Buijs (VVD), chairman of the South-East Brabant Safety Region, refused to force Vion to close its doors, however. She made it no secret that economic interests played a role in her decision. The biggest slaughterhouse in the Netherlands had to continue to slaughter animals, no matter the circumstances or costs.

But things went wrong in other slaughterhouses as well. On 20 August 2020, the NOS revealed that Van Rooi Meat’s slaughterhouse had ordered its employees to declare that they were

healthy even when they were displaying COVID symptoms. They had to put a tick in the box marked ‘healthy’. Employees reported that they didn’t dare to call in sick, fearing that they wouldn’t be called on and lose their source of income. Large slaughterhouses were exempt, smaller-scale businesses weren’t always, to give the impression that the government was taking a stand. On 4 November 2020, the small meat processing plant, Verhey Vlees, in the Limburg town of Nuth was closed down for a week because 18 per cent of the company’s employees had tested positive for COVID. It’s exactly the same percentage as the infection rate at the meat-processing plant in that American village where you could just picture the lonesome cowboy riding off into the sunset.

Until COVID, we were used to coming into work with a runny nose. And now, all of a sudden, we were directed not to do so. Employees were bound not to go to work. And that included the employees and the supervisors in those slaughterhouses. But one day without slaughtering means that 1.7 million animals have to spend another day in Dutch stalls. Everyone could see what problems that would create if breeding continued in factory farms while the slaughter capacity decreased. It is both a calculated and cynical observation: to prevent stalls in the Netherlands from overflowing with chickens, pigs and cows, the animals had to be brought to the slaughter ‘on time’. That is the cast-iron logic that drives this industry of death.

Shortly before the outbreak of the coronavirus crisis, Minister of Agriculture Carola Schouten (Christian Union) had already admitted to the House that the pressure on the slaughtering process was so great that the rules for food safety and animal welfare could not be safeguarded sufficiently. And then COVID came on top of that.

When animals are not impregnated, no new animals will be born, and the stalls will not be stuffed to the rafters. You can’t get more logical than that. We asked the minister whether she thought it was responsible that the level of monitoring, which was already abysmal

as she had freely admitted, would decline even further. Did she think it was responsible that the pressure on the slaughtering process would only increase? Was she planning to resort to breeding bans to prevent overcrowded stalls? Did the ministry feel it was responsible for tens of thousands of pigs still being sent to slaughterhouses in Noord Brabant, where employees had to work side by side to keep up with the murderous pace, in violation of every RIVM guideline?

The sector reacted furiously to our parliamentary questions. It was shameful that the Party for the Animals would use COVID to argue for a partial breeding ban.

Anger in the meat, fish and dairy sector isn't the result of a lack of emotional control; it almost seems to be used as a tool by the industry.

Fishermen were enraged when their right to rob British waters of fish was threatened because of Brexit. The result: for a while, the entire Brexit deal was up in the air again.

Goat farmers bristled when the Ministry of Health wanted to inform residents of where dangerous outbreaks of Q fever had taken place. The result: residents were left entirely in the dark about the risks they were running.

The dairy industry lobby, including the political branch (read: CDA and Member of European Parliament Annie Schreijer-Pierik), was furious because plant-based dairy alternatives had names that looked like the names of animal-based dairy products (such as the extremely confusing 'soy yoghurt'). The result: the European Parliament decided that plant-based dairy products should not be given names that triggered any association with dairy products.

There is not a single sector, professional group, lobby, or interest group that has so unashamedly wallowed in its role as victim as the representatives of the livestock industry. Back in 1995, Jozias van Aartsen (VVD), shocked by what he was faced with when he, a relative newcomer, was appointed Minister of Agriculture, spoke of

a ‘poor-me syndrome’ from which the agricultural lobby really had to move on. They haven’t yet succeeded.

As soon as a farmer or a fisherman somewhere in the Netherlands gets riled up about something, tears well up in the CDA Representatives’ eyes as they wail and moan on the Minister of Agriculture’s doorstep. When in CDA Representative Jaco Geurts’ opinion, Minister Schouten failed to adequately respond to one of his questions (Geurts wanted Schouten to pay up for 600 calf fatteners), he was livid. ‘I am not going to battle it out like this anymore. I will have a one-on-one chat with the minister about this behind the scenes. This is unacceptable. This is really urgent, and I will not stand by this,’ Guerts yelled unabashedly at Schouten.

Rage works. As did the outrage over our plea for a partial breeding ban. After just two days, Minister Schouten came back with the first replies. And they sounded like they had been written up by the spokesman of those angry farmer interest groups. There was no reason to assume that problems would arise in slaughterhouses; the NVWA would immediately call the slaughtering process to a halt if an inspector saw that directives were not complied with. As we discovered later, this didn’t happen at all. And NVWA management knew this. The main question is whether the minister was aware of what was going on. Either she lied to the House, or her own NVWA failed to inform her. Both scenarios are worrying, especially given that the sector had already admitted that it couldn’t adhere to the 1.5-metre distance rule. Back in March, Gert-Jan Oplaat from the Association of Dutch Poultry Processing Industries (NEPLUVI) said on the television programme *Spraakmakers* that keeping a distance of 1.5 metres was not always an option in slaughterhouses. And plexiglass screens between employees were not allowed everywhere because that made intervening difficult when something went wrong.

Two months later, the Federation of Dutch Trade Unions (FNV) sounded the alarm when spot checks showed that most businesses

in the meat sector failed to comply with RIVM directives. Four trade unions raised the alarm because they were receiving reports that NVWA inspectors could not keep their 1.5-metre distance during inspections. ‘As long as people cannot work safely, the non-critical branches of the business must be called to a halt immediately,’ an official from the FNV said.

Pressurised by the media and a majority in the House, Schouten announced that slaughterhouses that didn’t meet directives would be closed down. A day later, her resolution to do so had weakened once more: she went into talks with representatives from the sector, a meeting she later referred to as an ‘intense’ conversation. Jos Goebbels of the Central Organisation for the Meat Sector (COV) played that intensity down. ‘I didn’t end up with any cuts or bruises.’ Less than 24 hours after the meeting, Ton Heerts, mayor of Apeldoorn and chairman of the Northern and Eastern Gelderland Safety Region reported that the directives were being violated once more.

In those months, the House accepted motion after motion from the Party for the Animals. A majority of the House was dead-set against the cabinet’s approach, which involved little more than issuing pleading letters to the sectors, politely requesting that they please keep to the directives, and then promptly looking the other way. And all this while, following the United States and Germany, COVID hotbeds were discovered in Dutch slaughterhouses. Time and time again, the House supported our motions to force slaughterhouses to comply with RIVM directives just like the rest of the country, reduce the rate of slaughter in compliance with RIVM directives, and implement a reporting obligation for businesses that were dealing with infection clusters, as the larger slaughterhouses were keeping those infections under wraps.

However, in all those months, the cabinet wasn’t in charge; the meat sector was. The sector determined policy, defied the rules, and increased the slaughter rate instead of decreasing it. Gert-Jan Oplaat from the poultry processing sector talked as if he was sitting

in section K among the ministers of our parliament. ‘Lowering the production speeds in poultry processing plants is not going to happen.’

And the worst of it was… Not that the minister refused to call the slaughterhouses to heel. Not that the sector broke the rules time and time again. The worst of it all was that the minister was spending her valuable time hawking to the Chinese government to start opening its markets once more for Dutch pork. At the end of June, China refused to import Dutch pork because of the COVID outbreaks in our slaughterhouses. Now the tears were welling up in the VVD’s eyes. Spurred on by the largest governing party, Schouten came into action. The diplomatic lobby with China started up again, and soon after that, Vion Boxtel and Vion Groenlo were the first slaughterhouses to resume export to China.

Pigs in the livestock industry are breeding grounds for flu viruses that can trigger a new zoonotic pandemic. The sudden cessation of the export would have been the perfect opportunity to halt the breeding of pigs altogether - and not start it back up again. The same applied to the duck farming industry. When the market completely fell away due to the coronavirus crisis, the breeding and killing of ducks was temporarily called to a halt. And started back up again. In the middle of the largest crisis the Netherlands has experienced since the Second World War, it didn’t occur to Minister Carola Schouten to permanently close down the Petri dishes for new pandemics.

The coronavirus crisis has exposed many bad apples in our society. The situation in the Dutch slaughterhouses is one of those apples – and probably heads the list. But the cabinet placed the meat sector on their ‘vital sector’ list. That is somewhat cynical when you consider that slaughterhouses are lethal in all senses of the word, both for animals and humans. The coronavirus crisis also illustrated that pressure and rage from the sector often provided enough leverage to ensure that the cabinet simply ignored decisions voted on democratically.

In 1997, the House agreed to file a motion about the public transport system, against the wishes of the incumbent cabinet (the first so-called Purple cabinet, a coalition of 'blue' liberal and 'red' social-democrat parties). Minister of Finance Gerrit Zalm (VVD) wanted to let the House know that the cabinet would not exercise the motion, but his microphone didn't work. 'We are not carrying this motion out,' Zalm yelled into the room, hands cupped around his mouth. The entire House was present, and most representatives burst out laughing. Not everyone was happy with Zalm's stunt. Twenty years after the fact, Bart Zuidervaart wrote to newspaper *Trouw* about how CDA Representative Vincent van den Burg sat with clenched teeth: 'As a lawyer and a Member of Parliament since 1979, he noticed how an increasing number of motions were not being carried out by the cabinet. He later vented his frustration to newspaper *NRC Handelsblad*: "First, the insolence of Minister Zalm (…) and then the impudence of the government fractions that happily sat laughing about it. As one of the more senior Representatives, I was mortified."'

Zalm's action was later marked as typical for the arrogance with which the two Purple cabinets dealt with the House. Not much has changed since then. That arrogance is particularly evident when it involves vulnerable interests without a strong lobby. The environment and animals can't call CDA Representatives out of bed in the middle of the night and rant at them, the way that the directors of slaughterhouses and chairmen of farmers' interest groups can, in order to get their way. Which they do. Over and over again.

6

FUR FAUX PAS

Who or what is responsible for all those COVID infections in mink farms, journalist Peter de Graaf wondered on 14 October 2020 in a feature article in the *Volkskrant*, one of the leading Dutch newspapers. Despite all the restrictive measures, the number of infected mink farms continued to increase. How?

That was the leading question that virologists, professors of veterinary medicine, bio-veterinarian experts, employees from the Animal Health Services and the Dutch Food and Consumer Product Safety Authority (NVWA) had been poring over since April 2020. All those experts were faced with a big mystery that continues to remain unsolved to this day.

What quickly became apparent was that the situation turned out to be far worse than was initially thought. At first, the risks were believed to be minimal, and we were told that we should patiently wait for more scientific evidence. Where had we heard that before?

When the COVID pandemic reached the Netherlands in late February, the cabinet swore that animals were not or were barely at risk. However: even back then, COVID research was being conducted with ferrets because ferrets were highly susceptible to COVID and could transmit the virus. Ferrets are closely related to minks.

Despite all our governments' promises to the contrary, the Netherlands experienced a world's first when in April, the first infection in the livestock industry was discovered. Most Dutch people reacted in bewilderment, not so much to the infection itself, but to the fact that there should even be mink stuffed in tiny cages in the Netherlands. Many people didn't know that more than four

million mink pups are bred in the spring every year in the Netherlands only to be gassed for their fur in the autumn. The sector calls it the ‘harvest’.

One of the reasons why so many people were shocked was that the Dutch people thought the mink industry had been over and done with years ago. And the politicians had thought so too. More than 20 years ago, the House of Representatives had decided to end the mink farming industry. In 1999, a motion from Willie Swildens-Rozendaal from the Labour Party was accepted that called on the government to shut down the sector as quickly as possible. Minister Laurens-Jan Brinkhorst was supposed to have followed through with a motion for a legal ban, but this plan perished with the fall of the second Purple cabinet. The brushing aside of the mink farming ban by the subsequent Balkenende I cabinet (a CDA, LPF and VVD coalition) at the time was the immediate reason why the Party for the Animals was established.

In the 2006 election campaigns, the campaign in which the Party for the Animals would gain seats in the House of Representatives for the first time, Socialist Party Representative Krista van Velzen announced a bill for ending mink farming in the Netherlands. In 2008, this bill was discussed in the House of Representatives - and accepted. Unfortunately, this was followed by a protracted transition period after a tug of war about the compensation levels involved. The process in both Houses took five long years because of the compensation issue. Moreover, the mink breeders were allowed to continue for another ten years to earn back their investments. The breeders contested the ban to the highest courts, but in vain: the ban remained. In 2024, mink farming would finally be no more in the Netherlands. Twenty-five years after the House had accepted Swildens-Rozendaal’s motion.

And then COVID came.

In April, the first mink in the mink farms became infected. The cabinet was forced to admit that animals could contract COVID after all. But they also added that the chance that people could, in

turn, be infected by mink was negligible. A few weeks later, we discovered that minks could infect humans after all. The government reacted with 'preventive measures and monitoring of the situation' to limit the number of infections. In the weeks that followed, these measures had to be adjusted repeatedly, and every time they completely fell short of stopping the spread of the virus. Minister of Health Hugo de Jonge (CDA) smugly stated during COVID debates that the chance that your neighbour would infect you with COVID was greater than the chance you would be infected by a mink. The parallels with the Q fever crisis were worrying, to say the least.

Only after 42 infected farms and hundreds of thousands of gassed minks did the cabinet decide to shut down the sector, but not until after the 'harvest' so that breeders could finish their deadly work and sell the pelts.

Seven and a half months after the first infection, the mink farming industry in the Netherlands came to an end. In those months, 70 farms had been infected, two-thirds of tested employees had been infected by COVID, and 2.8 million minks were prematurely gassed.

And during all this time, the virus was allowed to skip among humans and animals and mutate in the minks. 'A detailed analysis of the outbreak among the first 16 minks showed that 66 employees and owners (and 11 stray cats) had definitely been infected through the minks - 'they had the same "mink variant" of the virus as the animals themselves,' the *Volkskrant* wrote on 14 October 2020. The Erasmus MC team led by virologist Marion Koopmans discovered five clusters of the 'mink virus'. That indicated that the virus had been transferred at least five times from minks to humans. The researchers compared this to the image of a bubbling Petri dish: a human infects a mink that infects other mink. Those mink, in turn, infect other people and stray cats on the farm. 'The source of this branching out of the virus is human,' the Utrecht veterinary epidemiologist Francesca Velkers explained to the *Volkskrant*. 'It then jumps from animal to animal, and sometimes back to humans.'

In Denmark, it became clear what these bubbling Petri dishes could lead to. On 4 November, the Danish mink industry made headlines worldwide. Seven regions in the north-eastern part of the country immediately went into lockdown because of a new COVID variant resulting from mutations on the mink farms. The Danish prime minister, Mette Frederiksen, described the situation as 'very, very serious.' She added: 'The mutated virus in minks can have devastating consequences worldwide.' All mink in Denmark were gassed in no time.

At least half of the COVID infections among people in the north of Denmark were related to mink. A few weeks prior, the Statens Serim Institut, the Danish RIVM, warned that one of the mutated COVID variants that had arisen from outbreaks in mink farms could be resistant to the COVID vaccines under development.

That would mean that people who were vaccinated against COVID-19 were still at risk of becoming infected with a mutated mink variant. And as long as mink farms in other countries were not shut down, returning to a life before the 'new normal' would be impossible. By the time the Danish government intervened, twelve people were positively infected with that specifically mutated virus variant. 'The worst-case scenario is that a new pandemic will occur. Not from Wuhan, but from Denmark', the Danish RIVM urgently warned.

How could we - in the Netherlands, of all places – have underestimated the dangers of mink farming, even after our experiences with Q fever? The recommendations posed by the Van Dijk committee seemed to be 'forgotten': act preventively, don't take any risks with public health. The mink farms were allowed to operate while other economic sectors were drastically curbed to prevent further spread of the coronavirus. In other sectors, the precautionary principle was adopted. But not in the mink sector.

Just like with the Q fever crisis, the immediate focus was on the financial consequences, on the compensation that would be required if the mink farms were to be closed down. The sector was armed to

the teeth to fight for the most money they could get out of it, just like they had battled six years before the highest court to take the ban off the table. A few breeders were even prepared to retain mink dams as a means of applying pressure.

Brabants Dagblad, the regional newspaper in Brabant, where most of the mink farms were located, wrote extensively in August 2020 about how mink farmers tried to shape public perception: 'The sector continues to portray an image of family farms where parents and children work hard to scrape together a living. But that image needs to be tweaked a little. In its heyday, a mink pelt was sold for up to 70 euros on the market. That is twice to three times the cost price: an unprecedented margin for the livestock industry, according to an expert from Wageningen Economic Research. "Anyone with an eye for breeding could earn quite a bit of money."' Wim Verhagen, a spokesman for the Dutch Federation of Pelt Farmers (NFE), told *Brabants Dagblad* that the mink breeders should be 'fairly' compensated by the government.

And by 'fairly', he meant 'handsomely', of course. It wasn't fair at all. Other business owners, such as restaurant owners who were forced to close their doors permanently because of the COVID measures, were not compensated for their loss at all. Mink farming, a sector that was considered socially unacceptable and was legally marked as unethical, was given ample compensation. And that compensation amounted to 150 million euros, plus an additional 100 million in damages; more than 250 million euros for a total of 140 mink farmers (it was initially 110 farmers, but the government decided to give a bag of money to the 30 farmers that had already stopped as well).

Verhagen was clearly hugely satisfied with the quarter of a billion euros. 'Thankfully, we see in the discussion around the pig farms and nitrogen levels a different approach to ten years ago. If the government wants to get something done, they need to pay up and adequately compensate people so they can continue with their lives.'

The largest Dutch mink farmer, Jos van Deurzen, was valued as one

of the wealthiest pelt farmers at 89 million euros, and brothers Rien and Pierre Leeyen were taxed at 130 million euros. A 'smaller' mink farmer, 22-year-old Mischa Bouwer, said in an interview with *VICE* that he had 2.2 million euros sitting in his bank account. Did a multi-millionaire such as Jos Deurzen really have to be compensated so royally by the government for closing down his business activities because it was endangering public health? 'Yes,' was Wim Verhagen's answer to *Brabants Dagblad*. 'I have respect for people who achieve something. I can appreciate footballers such as Ronaldo and Messi. That one is more successful than the other doesn't mean that you have to deprive him of anything or treat him any differently.'

In the debate that ultimately led to the end of mink farming, the cabinet continued to approach the sector with kid gloves (in contrast to the Kevlar-reinforced gloves that breeders used to grab the mink before throwing them into the gas chamber). The cabinet was left with two choices. It could preventively close down the mink farms in the interests of public health, as it had done with other sectors: cafés and restaurants had to close their doors, hairdressers were forced to stop their activities, and the cultural sector was brought to its knees. The House supported a proposal from the Party for the Animals and the Labour Party to put a halt to the mink farming sector on these grounds. Mink farmers would then be compensated in line with the compensations for other business owners who had been forced to close their doors because of the same precautionary principle. It was a relatively cheap option.

The cabinet could also choose to move the 2024 ban forward. That was a more expensive route: according to the cabinet, this measure encroached on the right of ownership, and that's why the paid amounts to compensate for the damage were so high.

The second option prevailed, of course. Arranged by the mink farmers themselves.

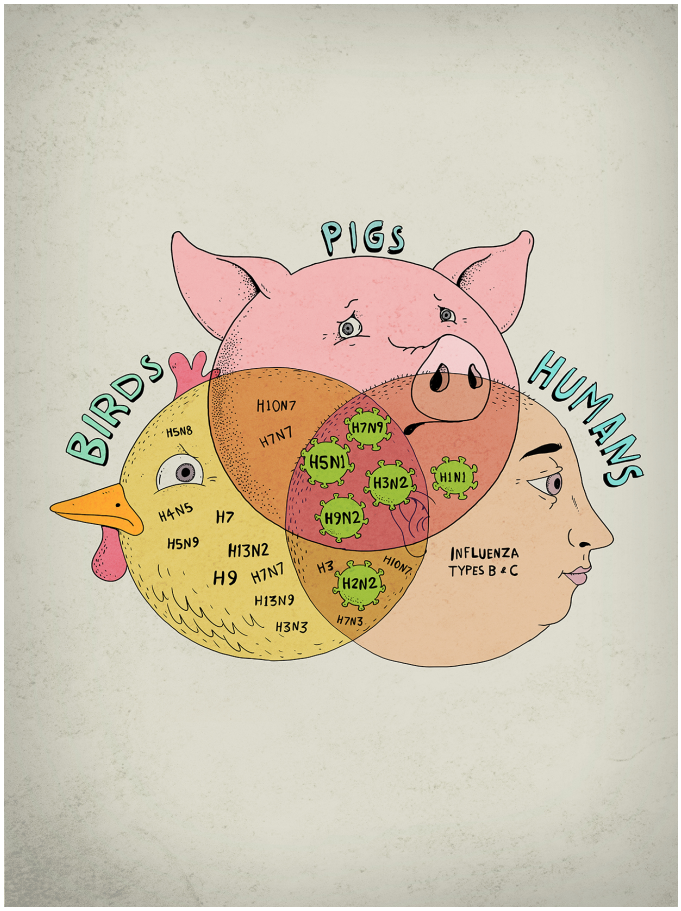
A quarter of a billion euros. In the hands of former mink farmers. You only need to put two and two together to conclude that breeders

will only switch their activities to a different animal with that kind of money. Business owners may demand so many things, but the government is responsible for due care when it's spending taxpayer money. So it would have been the cabinet's duty to at least assign a condition to the already disproportionally high sums: don't use the taxpayers' money to invest in activities that jeopardise public health. Meanwhile, Minister of Health De Jonge had left the decision-making process to the Minister of Agriculture. Minister of Agriculture Schouten didn't feel much like placing conditions to protect the public's interests by preventing businesses from switching to other animals as sources of income. A proposal from the Party for the Animals making it legally binding that mink farmers couldn't just switch to the breeding of other animals was voted off the table in early December. The entire coalition didn't want to have anything to do with it. Prime Minister Rutte, who by his own admission had ended up in the largest crisis in his career because of a zoonotic disease, let it happen.

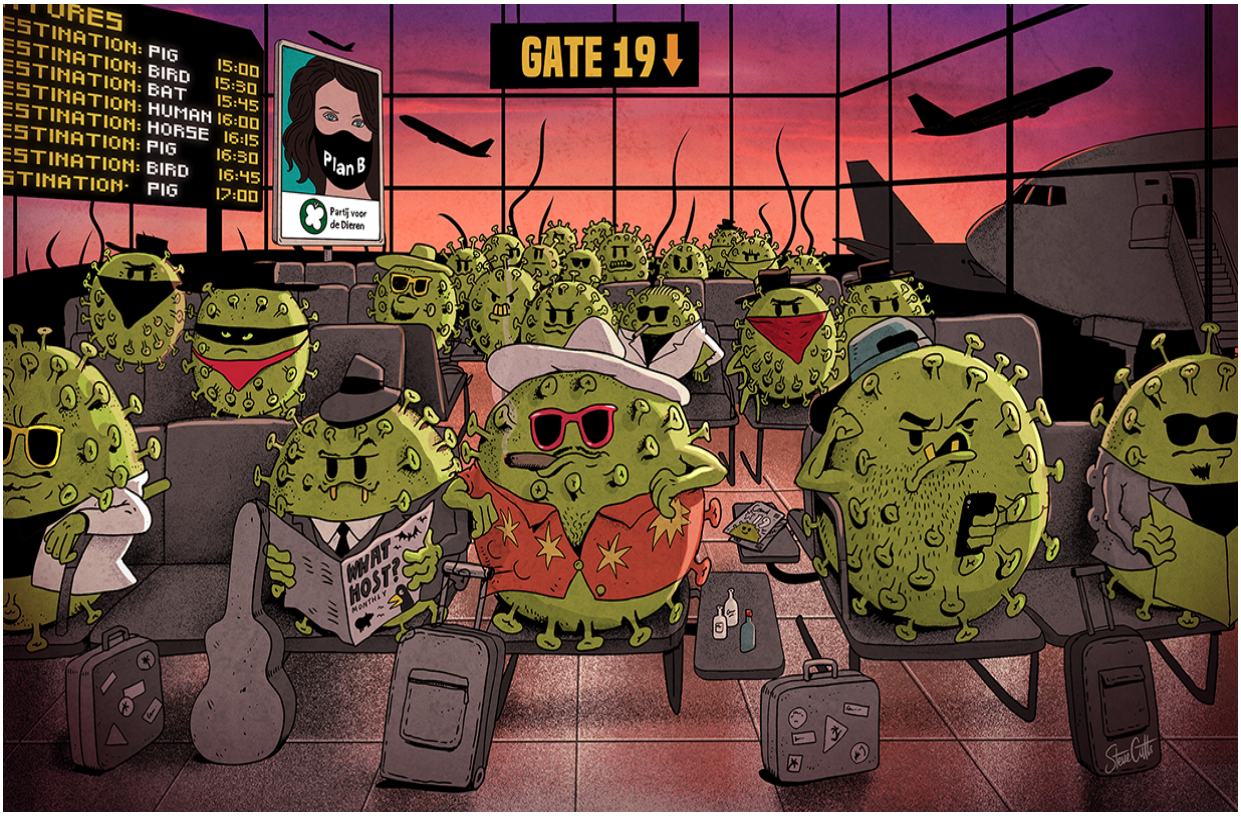
On 19 December, two weeks after our proposal was rejected, the *Leeuwarder Courant*, a Frisian regional newspaper, interviewed two former mink farmers who were setting up a new business. In what had they invested their lump-sum compensation? Goats. In Friesland, the province that was hit by a large outbreak of Q fever in 2012.

Call it cynicism. Or simply: fur faux pas.

ILLUSTRATIONS



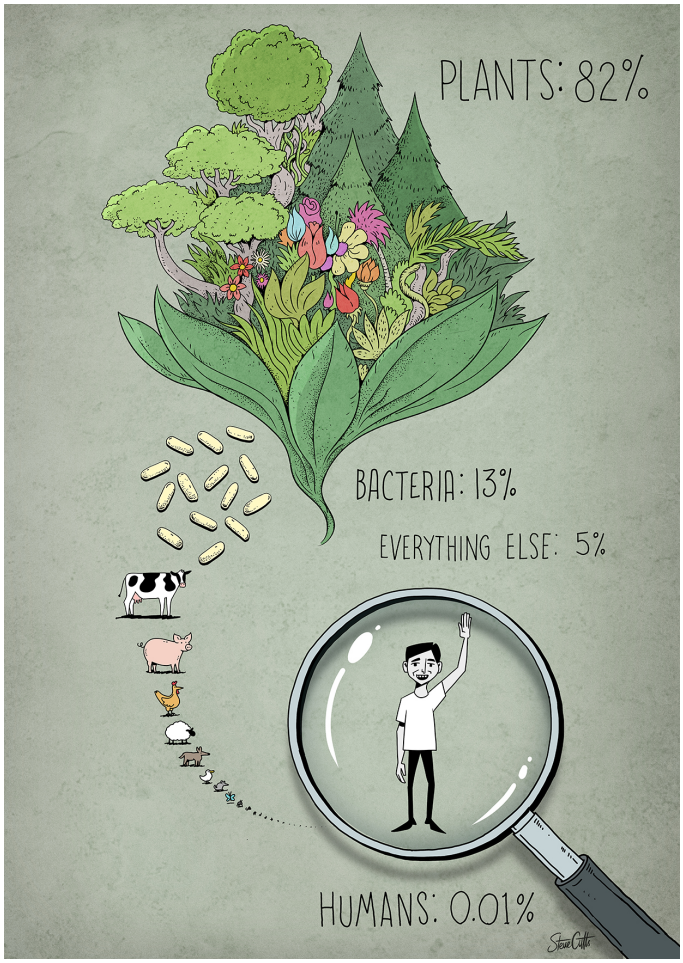
The World Health Organisation has been warning us for years about the relationship between humans and animals and the associated pandemic risks. This simplified version created by Steve Cutts is based on the following Venn diagram:
https://www.informationisbeautiful.net/visualizations/which-flu-virus/



Air travel was not restricted during the lockdown. Moreover, the air transport of calves, hatchlings, and pigs to distant parts of the world continued, despite the known fact that the virus moves most quickly by plane.

The thin thread interweaving all life on Earth is a lifeline for humans, animals, and the natural environment. We may not immediately realise it when we destroy our rainforests to feed our animals, but we ultimately will be faced with the irreversible consequences.

Steve Cutts designed the cover for this book. With this design, he illustrates how, through animals, humans and the economy are also heavily hit by pandemic diseases that strike humanity from the animal kingdom.



Humans only make up 0.01% of all life on Earth. Yet, they are a plague to the other 99.99% in many cases.

The world-renowned artist, Steve Cutts, created an animation (titled 'A Viral Spiral') about the largest pandemic threat that has paralysed the world since late 2019 for the scientific bureau of the Party of the Animals, the Nicolaas G. Pierson Foundation (NGPF). COVID-19 is not the only threat to public health and the economy; countless other zoonotic diseases form an equal or even greater threat. Cutts' animation shows the logical connection between the problems and solutions presented in this book, issues that the Party for the Animals has been trying to bring to the world's attention since its establishment. The illustrations in this colour insert give a brief impression of the work that Cutts made for the NGPF.

Steve Cutts' most famous film is the animation film titled 'MAN' from 2012 about the relationship between humans and the natural environment. Today, this animation film has had more than 46 million views on YouTube.

Another famous work from Cutts is the animation film 'Are You Lost in The World Like Me', which he made for Moby & The Void Pacific Choir, together with 'In This Cold Place'.

Other popular videos from Cutts on YouTube include 'The Turning Point', 'Happiness', and 'Fear of the Deer'.

The cover illustration of this book is also designed by Steve Cutts. We are honoured to have him collaborate with us on the animation film and this book.

The animation film 'A Viral Spiral' can be viewed via the NGPF channels on YouTube and Vimeo.

7

NATURE AS BIOTERRORIST

‘No easing of restrictions before Christmas due to high infection rates’
‘250 new hospital admissions, number of COVID patients stable for three days’
‘Far stricter COVID restrictions at hand’
‘Hundreds of protesters demonstrate in Eindhoven against COVID restrictions’
‘Fine and criminal record for Minister Grapperhaus after violating COVID rules at wedding: “I can’t say I’m happy about it”’

Since March of 2020, the coronavirus pandemic has been responsible for countless headlines in newspapers and TV news programmes and talk show discussions. They talk about the figures (the number of infections, hospital admissions, ICU admissions, deaths) or about the restrictions (too strict, too lenient, too early, too late, too few). Often, the debate revolved around daily trends, political consequences, restrictions and compliance with those restrictions, or about the tone of the debate itself. In short, the discussions were often about the symptoms and the treatment of symptoms. Thankfully, among the rat-race for clicks and hits, there were also journalists in the Netherlands and the rest of the world who went hunting for the root causes. How did we end up in this nightmare? And what needs to happen so we can leave this behind us?

On 17 June 2020, such a background story appeared in the *New York Times* with the headline: ‘How Humanity Unleashed a Flood of New Diseases’.

The newspaper interviewed two scientists with years of experience,

Felicia Keesing and Richard Ostfeld. They conducted long-term research into the role of biological variation in ecosystems in, for example, the spread of Lyme disease. Lyme disease is an infectious illness that is transferred from ticks to humans with potentially severe health issues as a result. ‘Few people have willingly spent as much time inspecting ticks as these ecologists,’ the newspaper said about this couple. In more than two decades of research, Ostfeld and Keesing have discovered that biodiversity in the natural environment has a significant impact on the prevention of Lyme disease.

Ticks do not carry the bacteria that causes Lyme (the *Borrelia* bacteria) with them, the New York Times explains. They become infected with the bacteria through the animals they attach themselves to. A tick that has contracted the Borrelia bacteria by drinking the blood of an infected host can then transfer the bacteria to humans. Some animals - such as the opossum - are bitten by ticks but do not transfer the bacteria. Other animals such as the white-footed mouse, on the other hand, do exactly that. In fragmented and barren natural environments, where many specialised creatures cannot survive and species diversity is low, populations of a generalist species such as the white-footed mouse may explode. The mice, in turn, infect vast numbers of ticks with the *Borrelia* bacteria that cause Lyme, escalating the risk to humans. In areas with high biodiversity, this process is reversed. In these areas, white-footed mice populations are restricted by numerous competitors and predators, most of which are far less likely to infect ticks with the *Borrelia* bacteria. That’s what reduces the risk of spillover, a phenomenon known as the dilution effect.

Since the 1990s, when Ostfeld and Keeling started their research, many other researchers working in various ecosystems have discovered that high biodiversity often mitigates the risk of infectious diseases. ‘The best hosts for many diseases are often the very species that thrive when humans disturb habitats and diversity declines,’ Keesing says.

She recalls the summer of 1999, when crows dropped out of the sky on the Bronx Zoo grounds as if they had lost control over their bodies in mid-flight. New York residents reported unusually high numbers of dead birds on their lawns and pavements. When Tracey McNamara, the chief pathologist at the Bronx Zoo at the time, examined some of the dead crows, she discovered numerous symptoms of a viral infection among the birds. Meanwhile, doctors in New York were seeing clusters of human patients with fever, confusion and muscle weakness, some of whom died.

'By Labor Day weekend, whatever had been afflicting the crows spilled over to the zoo birds: A cormorant swam in perpetual loops, and the flamingos' necks bent like wilting tulips. Soon, those birds died, along with laughing gulls and a snowy owl. McNamara wondered if the human and bird outbreaks might be linked to a single pathogen.'

A few weeks later, the results from investigations from five different labs proved McNamara was right: the crows, zoo birds and humans had all been infected with the West Nile virus, a zoonotic pathogen that is usually found among birds but could be transmitted to humans via mosquitos. The West Nile virus had never before been documented in North America. It could have arrived in the body of a bird or a mosquito, have subsequently infected local bird populations and ultimately spread to humans. The West Nile virus continues to infect thousands of people in the US each year, with an average mortality rate of 5 per cent among known cases. The number of known cases and deaths varies considerably between years and from one region to the next.

In regions with diverse bird populations, the virus has trouble getting a foothold, reducing the risk of transmission to humans. In areas with a low bird diversity, especially in built-up urban areas, the risk is significantly greater.

A finding worthy of note. Not because it gives us new insight into how human well-being and health is dependent on the ecosystem we inhabit, but because the researchers have exposed such a

concrete, direct causal relationship. The less biodiversity in our living environment, the greater the risk that our own health is adversely affected.

The researchers' findings point in a clear direction: the greater the diversity of species in the natural environment, the less chance of contracting Lyme disease. More diverse bird populations, less chance for the West Nile virus. Although we are talking about wild bird populations, let's make no mistake about that. Because as soon as humans start locking up and breeding birds, the consequences to our health take a turn for the worse.

A month after Minister of Finance Wopke Hoekstra had referred to the COVID pandemic as a 'Black Swan', six white swans were found dead in the province of Utrecht. Two of the mute swans were examined by Wageningen Bioveterinary Research - they had fallen victim to the bird flu, the highly infectious H5N8 variant.

A week later, on 29 October 2020, the Ministry of Agriculture announced that a highly infectious variant of the bird flu had been documented at a large poultry farm in the village of Altforst in Gelderland. It was a farm with 35,700 'broiler breeders': hens and roosters that are cooped their entire lives to produce eggs for the meat-producing chicken industry.

Hennie de Haan, the appropriately surnamed (de Haan is Dutch for 'rooster') chair of the Dutch Labour Union for Poultry Farmers (NVP), reacted with concern in the *Volkskrant*, a Dutch newspaper: 'The bird migration season, when viruses often spread through wild animals, has just begun. Moreover, this concerns a business that exercises due diligence and where the birds don't go outside. How it made its way among these birds is a mystery to us and gives us cause for concern.'

I was worried too. But I didn't think there was anything mysterious about it. The day after the dead swans were discovered, Minister Schouten had implemented a regulation to keep all poultry indoors. Farms who let their chickens roam around outside were to keep all

their animals locked up. It is the standard response with which the Ministry of Agriculture tries to prevent bird flu outbreaks: keeping poultry indoors, hygienic measures, transportation bans, local hunting bans - and the culling of entire stalls filled with animals once an infection has been documented (or preventively if a farm in the area was infected). The idea is: as long as you keep all your animals cooped up in hermetically sealed stables, you can prevent further infection. And if one of the animals is infected in some way, you kill them all.

Empirical findings pound that idea mercilessly into the ground: there have been 31 bird flu outbreaks in the Netherlands in the past seven years. Almost all the outbreaks took place on farms where the animals never see the light of day. In early 2020, the agricultural expertise platform *Pluimveebedrijf.nl* summed up the approach as follows: 'Keep your chicken indoors, keep your fingers crossed, and hope that the bird flu blows over.'

Hope that it blows over. How irresponsible this 'burying your head in the sand' political tactic is, is not only apparent in the recurrence of the bird flu. Every year, between 10 and 40 businesses test positive for low-pathogenic bird flu through scheduled monitoring. This low-pathogenic variant is not so dangerous and infectious in itself, but it can quickly mutate into a highly contagious and fatal high-pathogenic variant. High-pathogenic bird flu viruses do not originate in the wild. They are the result of mutations on poultry farms, in barns stuffed with chickens, ducks or turkeys.

Various newspapers, including the *Volkskrant* and *Trouw*, wrote how in late 2011, virologists Ron Fouchier and Ab Osterhaus illustrated how the high-pathogenic H5N1 bird flu virus could, with a few mutations, change into a variant that was highly contagious among humans. The details of the study couldn't be published for fear that bioterrorists could use it as a biological weapon. Donald Henderson from the American Center for Biosecurity stated: 'The bird flu virus can kill half its victims. That

is more than any other infectious disease. In combination with the ease with which the lab virus can spread among humans, it's the ultimate biological weapon.'

Fouchier and Osterhaus take into account - as do other scientists - that the bird flu virus can also naturally mutate into a variant that is contagious among humans. They see a natural outbreak of their mutated virus as 'the biggest threat. Mother Nature is the biggest bioterrorist.

Of course, there's nothing 'natural' about breeding and locking up chickens, ducks and turkeys – just consider the sad fact that these animals don't have the option of engaging in natural behaviours such as taking dust baths, swimming or cleaning themselves - but it's clear what Fouchier and Osterhaus are getting at. That raises the question of why our society is so fearful of the possibility that terrorists can make a weapon of mass destruction while we prime similar weapons with our livestock industry and our consumption patterns. Moreover, it's no longer a question of if it will detonate, but when.

Just as the *New York Times* did earlier that year, in late 2020 the Dutch website *De Correspondent* asked the question: where do pandemics actually come from? After reading the article, the editor-in-chief used the conclusion from Thomas Oudman's piece as its headline: 'The next pandemic is being bred in colossal hen houses'. They spoke to one of the global experts on the origins of the bird flu: professor of virology Thijs Kuiken at the Erasmus MC, who specialises in the transfer of viruses between wild animals and humans. 'He has been busier than ever researching COVID-19, but he is also concerned about the bird flu.'

Kuiken shares his expertise on Twitter (yes, you should follow him) and gave Thomas Oudman a 'crash course in the origins of deadly bird flu viruses'. Only one virus particle is needed for a virus to mutate and become fatal, Kuiken warns. That can occur naturally, but the animal carrying the mutated virus is usually dead before it can transmit the virus to another host.

Poultry farms are far more dangerous; chickens are cooped up so close to each other that the bird flu doesn't even require water to spread, as it would under natural circumstances. An infected chicken will probably die, but the other chickens are so close that they will have been infected by the time the dead chicken is discovered and removed. And the Netherlands has an awful lot of chickens, both nationwide - and per farm. The time that farms were only allowed to keep a few hundred chickens was decades ago: each farm has tens of thousands of chickens. A virus can quickly multiply and mutate in such an environment, leading to many variations of the virus. Thijs Kuiken is very clear on that: 'The risk of an outbreak is great because of the way we keep our poultry.'

Vaccinating chickens might help. The reason why that hasn't been done already is that 'the European measures against fatal bird flu variants are meant to favour the export of poultry products as much as possible. And that is, oddly enough, not the same as preventing chickens from falling ill. The point is to find and eradicate the source of an outbreak as quickly as possible. Vaccination complicates that.' So once again, economic interests take precedent over public health. In this case, the economic interest is the export of factory-farmed broilers.

There is ultimately only one solution, Kuiken states: 'All in all, the only solution is to keep less livestock and on a smaller scale, and to produce and trade at a regional level. (...) Deadly bird flu variants are a nightmare for the chickens themselves. Moreover, we are creating a huge problem for wild birds, who are already threatened by their shrinking habitats. And, of course, it poses a great risk to humans. Intensive livestock farming has been instrumental in causing deadly pandemics several times over the past hundred years.'

After the interview with Kuiken, the N5H8 bird flu virus rapidly spread through poultry farms in the Netherlands. In the stables at Altforst (human population: 555), 35,700 chickens and roosters had already been culled. By mid-December 2020, the number of

animals killed (chickens and ducks) stood at almost 600,000. In the village of Puiflijk (Gelderland, human population: 1,300), 100,000 chickens were killed by gassing on one single farm. Another farm in the area had 115,000 chickens cooped up in a barn. These animals were culled 'as a preventive measure'. I had to think back to Pieter van Vollenhoven LL.M., former Chairman of the Dutch Safety Board and a member of the Dutch Royal House, who once said in an interview: 'Humans are terribly good at killing.'

Thijs Kuiken concluded his crash course with an important lesson. 'If we humans want to continue to exist on this Earth,' he said, 'then we really need to start taking other species into consideration. And we need to be prepared to take action to do so. Or rather, make sacrifices.'

Virologists and ecologists show us the high price we will pay if we don't change our attitude towards animals and the natural environment. The idea that humans are separate from nature - above nature, even, like some sort of God - is a

dangerous misconception. Humans are part of the natural environment, nothing more and nothing less. Our well-being depends on the well-being of the ecosystem we live in and with which we are inextricably linked in every way.

In her book, *De wilde wereld* (The wild world), author Sanne Bloemink beautifully illustrates what our new relationship with nature should look like. 'Human health is directly linked to the health of the Earth, just like the interaction between the microbes in my gut is directly related to the food I take into my body and, therefore, the well-being of my entire body. Our idea of human health should be expanded to include an ecological concept of health and well-being. Within this concept, the health of people is always inherently linked to the health of their environment: the trees, plants, and animals, but also the water flowing through rivers, lakes and seas, and the air in the atmosphere. That vitality is more than the sum of its parts; it is complex and comprises a

healthy balance and a healthy relationship with all ecosystems on Earth.

Moreover, our way of thinking will go beyond the capitalistic abstraction of personal interests to wondrously lead the way towards benefitting the collective. People may have gotten wealthier, feel less hunger and become healthier than ever. Still, it is hard to celebrate life when inequality continues to grow, the climate is changing, and other species are dying. In other words, when the home of all those people and other beings, the “oikos”, is on fire.’

Although our lives depend on it, our natural environment is one of the most vulnerable interests in the political playing field in The Hague. This interest is the first to fall by the wayside when coalitions need to be formed. The initial reaction is usually: the environment is expensive. In neoliberal terms, you can’t fuel the economy with it unless you chop down the trees and burn them as biofuel in power plants. It is the most expensive misconception we’ll ever make.

Prime Minister Rutte called the coronavirus crisis the biggest crisis we are faced with since the Second World War. He said something similar earlier about the nitrogen crisis: back then, that was the biggest crisis in his career to date. The biggest crises from the career of the neoliberal who wanted to be the longest serving Prime Minister of all time, both have everything to do with the way we interact with animals and the environment.

That’s food for thought.

8

THE TRACTOR STATE

It was an odd sight in October 2019, those two protesters on the Malieveld in The Hague among angry farmers protesting against the nitrogen emission restrictions, two protesters that would later address the crowd.

Protesters usually demonstrate against the powers that be. But, if not the powers that be, aren't former political powerhouses Henk Bleker and Maxime Verhagen – because that's who those protesters were – the counterbalance to that power?

Henk Bleker, former State Secretary for Economic Affairs and Agriculture and the patron saint of factory farms, the monster lurking behind the nitrogen emissions and the destroyer of natural worlds, said to the farmers: 'We are going to cut back political involvement by at least half.'

And Maxime Verhagen? *Volkskrant* columnist Sheila Sitalsing explained in equally striking and comical terms how he took to the stage: 'Victimisation has many faces, and one of those faces appeared on the Malieveld last Wednesday, showing his wounds with a face contorted in pain: Maxime Verhagen. Verhagen's CV includes positions such as former Minister of Foreign and Economic Affairs, former Deputy Prime Minister, former leader of the Christian Democratic Appeal party, ambassador and advisor to the province of Limburg, and number 148 in the latest *Volkskrant* top 200 most influential Dutch people. But not today. Today, he is completely immersed in his role as a victim, using a soft, whiny voice to challenge what he and his fellow workers have been deprived of. His fellow workers are the builders, the people manning the excavators and man-lifts. Belittled by the elite, the

politicians, the high and mighty in The Hague. Let's say everything that Maxime Verhagen isn't. Set him in the middle of the Binnenhof (the physical seat of political power in The Hague), and he'd look around in a confused daze. He'd be completely lost at sea.'

There are two sad points to make about the 'nitrogen crisis', as we refer to it in the Netherlands. The first is that our country's natural environment is being suffocated under a blanket of nitrogen and manure. On the Veluwe, the ammonia from the livestock industry has acidified the soil to such an extent that birds and other animals can't find enough chalk to survive. We have come to the point where young tits can no longer grow a full skeleton due to a lack of calcium. Their legs break before they've even had a chance to leave their nest. The nitrogen crisis is, first and foremost, an environmental crisis. But the second sad thing about the nitrogen crisis is that it's all one big sham – and the farmers applaud this sham.

Maxime Verhagen and Henk Bleker protesting against involvement from The Hague: they sounded like a parody of Waldorf and Statler, those two grumpy old Muppets yelling comments from the peanut gallery.

Maxime Verhagen and Henk Bleker, the duo who managed to significantly exacerbate the nitrogen crisis during the Rutte I cabinet. With the fusion of the ministries of Economic Affairs and Agriculture, we suddenly had two Christian Democrats influencing policy on agriculture and the environment. The consequences were felt around the nation. Under the slogan, 'a cow in a field also qualifies as nature', 70(!) per cent of the budget for nature conservation was scrapped. Together with the culture sector (whose budget was halved), the environment became one of the biggest victims of the illustrious VVD-CDA coalition with confidence and supply from the PVV. Everything that even carried a whiff of nature conservation was thrown out, whether it involved expanding nature reserves, connecting nature areas, or restoring the nitrogen-

plagued environment. And the nitrogen emissions policy continued unabated, a policy that resulted in a Malieveld full of mega tractors and angry construction workers.

The contested Dutch Programmatic Approach to Nitrogen (PAS) was thought up in 2009 by the erstwhile CDA, PvdA and Christian Union coalition. It was a pact between the agricultural representative from the CDA, Ger Koopmans, and the climate representative from the PvdA and former Greenpeace activist, Diederik Samsom. In a reconstruction of the nitrogen debacle, Jeannine Julen wrote on 17 October 2019 in *Trouw* that two different versions were floating about over which of the two was the mastermind behind the plan. One story claims that the 'hyper-intelligent Diederik' was the inventor of the new nitrogen policy and that Koopmans, who was only looking for a solution for farmers who had been driven into a corner, followed meekly along. I had to laugh out loud when I first heard of this theory. I would never dare to downplay the intelligence of my former colleague Diederik Samsom, but anyone who was even remotely familiar with Ger Koopman's dealings during his membership in the House of Representatives knows that he really didn't need Samsom to 'follow meekly along' when it came to thinking up schemes to give the livestock industry free rein. Koopmans was the undisputed king of cattle in that regard. The other version of the story is true: Ger Koopmans convinced Diederik Samson that the Nature Conservancy Law had become so strict that even wind turbines were prohibited. That's not true, but you do have to assess their environmental impact when building wind turbines. And it's only fair that nature conservation laws apply to wind turbines as well. Nonetheless, Samsom was convinced, and so the CDA had a new way of bypassing the law in favour of the livestock industry; because that was exactly what the nitrogen 'approach' was.

The sham part of it, that the CDA continues to practice to this day, is that they make up policy to indefinitely circumvent the European nature conservancy laws drawn up by the Netherlands, together with other member states, with which they must comply. The exact

same thing happened before the nitrogen crisis: the Ammonia Assessment Framework was set up to grant permits to livestock industries where nature conservancy laws wouldn't allow it. When that didn't make it past the courts, Koopmans came up with the PAS system. This is how the CDA ensures that livestock businesses are temporarily tolerated in areas where they had no business being or receive permits for stables that should never have been built. The farmers were only too happy with this state of affairs. However, the catch was that these schemes to circumvent the law don't hold up in court. Sooner or later, the party is over, and everyone is left wondering if they can keep their permit or if they can continue with their business. We all know how the story ends because the cabinet and the House of Representatives are always given fair warning by the experts beforehand. Nonetheless, these schemes usually receive massive support from the House. Only the Party for the Animals has always fought tooth and nail against them.

The sheer size of the Dutch 'livestock population' - the animals that are bred and killed in the livestock industry - and the quantity of manure that is smeared out across the country annually has been untenable for at least 30 years. The livestock industry produces 75 billion kilos of manure each year - more than 25 bathtubs-full per Dutch resident. The resulting problems are endless. Manure is the permanent thorn in the side of every Minister of Agriculture, and nobody knows how to solve it. And yet, a reduction in the number of animals in the livestock industry by, let's say, simply breeding fewer animals remains unacceptable. Behind that elephant in the room hides a policy that only knows losers – the animals and the environment, of course, but also the farmers themselves. And because the simplest solution is not an option, farmers are forced to invest in technological solutions instead, such as air washers, low-emission stable systems and 'cow toilets'. These innovations aren't sufficient to reduce the damaging effects of too much manure, and so new adjustments constantly need to be made with scaling-up and the further industrialisation of the livestock industry as a result. And: decreasing the number of farmers. Over the past 20

years, half of the farmers have gone out of business, but the number of animals remains the same. The animals simply moved to the ever-expanding stables of the remaining farms. In addition to the animals, the environment and the farmers, the taxpayer loses out as well. A recent calculation by the economic consultancy firm Ecorys points out that the livestock industry's societal costs amount to six billion euros annually.

Thankfully, some people won't let our central government get away with it, although it's ridiculous (and here comes sad fact number three about the nitrogen crisis) that citizens have to take legal action because their government can't stick to their own laws, laws and regulations that are critical for a liveable Earth for humans, animals, and future generations. As nature photographer Ansel Adams once said: it is horrifying that we have to fight our own government to save our environment. I am very thankful that they do: Johan Vollenbroek and his team against the nitrogen policy, and Marjan Minnesma and her team in the Urgenda Climate Case. Their overwhelming dedication led to two pioneering court cases with monumental implications that serve as an inspiration for the entire world. Their court victories expose the failures in our political system and take the rule of law into both hands to drive the necessary change. It is a hopeful sign in the times of change we live in, times that irrevocably come with the necessary turbulence.

Before COVID struck, the Netherlands was caught up in the throes of protesting farmers and climate action. That led to some strange situations. Climate activists who had neatly applied for and announced their protests beforehand had to walk on eggshells and were carted off by the police if they did anything that violated their agreement with the mayor. I don't think a single mayor had given permission for all those unannounced tractor protests that took place in 2019. Do we live in some kind of tractor state, I asked Minister of Justice Ferdinand Grapperhaus (CDA) during our round of questions. There were clear signs of inequality when it came to keeping the peace, and certainly in the willingness to listen. To which protesters would the government lend an ear?

In rural Friesland, Drenthe and Overijssel, the answer was crystal clear: to the angry farmers. Farmers Defence Force supporters only had to park their tractor in front of the provincial government headquarters and yell 'boo' and the restrictions were off the table. In Noord Brabant, the Christian Democrats stepped out of the government and walked straight into the open arms of climate deniers. The new Christian Democrat management in Brabant is all about Agriculture, with a small subheading titled 'nature and the environment'. Brabant farmers are assured: their lobby is parked right on the most important seat in provincial government.

Not only bad news for the environment, by the way, but also - once again - for the cultural sector: for some time Brabant didn't have a deputy for art and culture, only a deputy for 'leisure'. The province that brought forth artists such as Vincent van Gogh and Jheronimus Bosch, Theo Maassen and Hans Teeuwen, A.F.Th van der Heijden and Gummbah, and my favourite music festival, the world-renowned Roadburn, ended up with a government that — in its 61-page programme – did not manage to put the word 'art' down on paper even once.

Although some parties thought it was a rather extreme view, the idea of a tractor state was later confirmed by the unsurpassed agricultural magazine *De Boerderij* (The Farm), that we love to read in the Party for the Animals common room. *De Boerderij* made a list at the end of 2019, as they do every year, listing who or what has the most influence on agricultural policy. You would expect the Minister of Agriculture to lead the way and hold top position. But no, the minister was number five on the list.

Number one was: the tractor.

Nonetheless, not all the farmers who stood on the Malieveld that day were angry. The newspaper *Algemeen Dagblad* (AD) published on 30 November 2019 a priceless interview with a rather stubborn farmer named Herman Kok (84) from Hoogland. Farmer Kok had been in constant disagreement with the Ministry of Agriculture, Wageningen University and his fellow farmers his entire life. He

had been warning for decades that industrial agriculture would be the death of the natural environment and now saw his suspicions being confirmed. Farmer Kok had called the AD himself: he wanted to have his say about the nitrogen crisis. The newspaper paid him a visit in Hoogland. 'Not that everyone who calls the newspaper gets full attention, but farmer Kok was something else,' editor Johan Hardeman added.

The farmer told his life story while sitting at his kitchen table, which was covered in newspaper articles about the nitrogen crisis, from the moment he was born in 1935 to growing up as a farmer's son, to working on his father's land.

As a member of the *Kritisch Landbouw Beraad* (Critical Agricultural Council), he has been critical of the Dutch agricultural system since the 1990s, calling it a system that has been solely focused on intensification and scaling-up since the Second World War. Under the motto 'never go hungry again' the Netherlands grew into the world's second-largest agricultural exporter. But the growth cannot go on endlessly, Kok argued even back then. The downsides of the system have only become more apparent since. Farmers are forced to continue to expand and invest, leaving them in debt. And those who can't handle the pace are forced to give up.'

Kok tells the AD that the nitrogen crisis is the alarm bell of the current agricultural system exceeding the limits of its growth. 'Let's get one thing straight: I am all in favour of agriculture and the environment. But the agricultural sector has run amok. Farmers have been driven mad by the government and the banks. They have worked themselves deep into debt to finance their mega-stalls and the expansion of their business. Farmers have changed into managers. Now they only talk about production figures where they used to manage and preserve the landscape. Farming has lost touch with nature. And the consequences are extreme: most of the biodiversity has disappeared. The farmers are being put through the wringer in the current agricultural system. All the power lies with the large supermarket chains now. They determine the low prices

the farmers get paid for the food they produce. They need to produce more if they want to earn decent wages. Meanwhile, cows and pigs are being bred as if they're machines, and the soil is becoming poorer and poorer. And the worst part is, you can't just go back. The government will have to help.'

Farmer Kok also outlines how the voice of the small-scale organic family farms is being suppressed in the agricultural debate. 'I and several others were already talking about closed-loop agriculture in the 1990s, but politicians, the Netherlands Agricultural and Horticultural Association and Wageningen University simply laughed in our faces.' He says about the nitrogen crisis: 'I warned everyone, and now the worst has happened. (....) It is time for systemic change.'

The farmers on the Malieveld have shown us that mega tractors are a status symbol for industrial agriculture.

But farmers such as Herman Kok have shown us that they've been right all along.

9

OLD RESOLUTIONS AND PLANS

‘Agriculture in the Netherlands should be completely different in ten years compared to what it is now. Is it finally going to happen after all these years? A major breakthrough is within reach. The ministry is ready, the plans have been drawn up on paper and approved by the government. Agriculture in the Netherlands will no longer be the same in ten years.’

Is this about some ground-breaking new vision from Minister of Agriculture Carola Schouten (Christian Union) on agriculture?

No. This quote comes from an article in the *NRC Handelsblad* published on 11 July 2000, over twenty years ago. The piece referred to a position paper drawn up by - take note - the VVD, the PvdA and D66(Social Liberal party) on agriculture.

What were they writing about? The main point was things had to change within ten years. They recognised that the agriculture sector was reaching its ‘societal, economic and ecological limits’. In ten years, so by 2010 at the latest, the agricultural sector would take into ‘full consideration’ the health and safety of humans, animals and ecosystems, fully meet environmental legislation (meeting national environmental goals in the process), and organic agriculture would comprise 10 per cent of cultivated land.

And this is my favourite part of the vision these three parties had over twenty years ago: the livestock industry would be far smaller, with fewer animals, a smaller environmental footprint and improved animal welfare.

Who would have thought that the VVD, in a moment of madness, would put its signature under a paper with the explicit aim to curb

the livestock industry? On 8 December 1988(!) *Trouw* led with the headline: 'VVD warns farmers. Livestock numbers must be reduced if technical measures fail.'

Other people from less surprising corners said something along the same lines. The Minister of Agriculture back then, Laurens Jan Brinkhorst (D66), asked the Wijffels committee in 2001, led by the CDA's H.H.F. Wijffels, about the future of the livestock industry. Their recommendations were telling: his commission said as early as 2001 that the intensive livestock industry in the Netherlands didn't have a future if it didn't change. The report from the Wijffels committee was merciless. 'The Dutch livestock industry needs to go back to the drawing board,' Wijffels said. 'Economisation and scaling-up have led to "amoral manifestations". How we relate to animals is unacceptable, and the environmental impact is too great,' the former Rabobank chairman stated. The minister called the conclusion concrete, severe, and unavoidable: the livestock industry as it was then had to change permanently. 'We are going to implement this,' the minister promised on behalf of the cabinet comprised of the PvdA, VVD and D66. 'We're not going to shelve this because we have so many reports shelved that this isn't going to fit anymore.'

It was one reason why the second Purple cabinet stated in 2002 that things were going to change in the livestock industry in the foreseeable future. The welfare of animals would be considered first, and practices such as cutting off piglets' tails would end. The cabinet proposed a period of ten years with a possible extension of another ten years. In theory, by 2012, or 2022 at the latest, the animal's welfare would be leading policy, and the production system would be adjusted to meet the needs of the animals instead of the other way around.

That was later confirmed by the Minister of Agriculture Gerda Verburg from – and once again, I'm not joking – the CDA. This minister was not exactly a pioneer in animal rights. Still, she also confirmed that the animal's welfare and intrinsic needs would be

prioritised and that we would stop carrying out procedures on animals. We needed to progress towards ‘far-reaching, closed-loop systems’. And, although she had a hard time admitting it, Verburg said that we should be eating fewer animal-based and more plant-based products.

Van Aartsen had said earlier that the sector was free to make an initial attempt to solve its problems but that the government would intervene if they failed to deliver. Van Aartsen was a member of the VVD party. Our Prime Minister, a VVD member, spoke the following words in the House: ‘I’m done with the dehumanising practice of stacking animals; you can always come to me if you want to put a stop to endless rows of cages stuffed with pigs.’

The recognition was always there: far too many animals have been raised in the livestock industry, severely damaging the natural environment and the animals themselves. Minister of Agriculture Cees Veerman (CDA) publicly admitted, after his term as minister had come to an end, that the system was stranded. Even Sicco Mansholt (1908-1995), the architect of agricultural policy at the time, said we had to switch gears.

From the moment that the Party for the Animals was elected into the House, our pleas to drastically reduce the number of animals in the livestock industry regularly drew the ire and outrage of other representatives. Journalists also often found our proposals too radical. This is funny in a way because we honestly didn’t think this up. Countless experts from numerous sources have also argued for a healthy agricultural economy and a drastic reformation of the livestock industry. Sometimes at the request of the cabinet. Cabinets from the PvdA, VVD, D66 and Christian Union have written in the past that change was on its way. But it was all talk. The current political system recognised that the Dutch agricultural model was untenable but was afraid to stand up to the agricultural lobby. They seemed to hope that the problem would simply disappear if they threw enough paper tigers at it.

The view that political parties finally had to do something to make

agriculture more sustainable was widely shared. A study conducted by NIPO, a Dutch opinion research agency, revealed that 74 per cent of the Dutch population felt that the government had to intervene in the factory farming industry. Around the same time that the Party for the Animals was elected into parliament as the very first party for animal rights in the world, the first Dutch citizens' initiative was launched: Stop Fout Vlees (Stop Bad Meat). More than 106,000 people signed the petition within the first three months, far more than the 40,000 signatures required for it to be addressed in the House of Representatives. Campaign leader Wouter van Eck had hit on the right approach. No radical demands that the political system would reject as too drastic, but merely the environmental goals that the government itself had set - and that the Netherlands was set to achieve. Van Eck commissioned the Agricultural Economics Institute to calculate what needed to be done in the livestock industry. The conclusion: if we wanted to achieve our own goals and finally solve the enormous manure problem, we would have to reduce the intensive livestock industry by 70 per cent.

After all the pretty words and promises that the agricultural sector would meet all environmental legislation and be fully held to account for the safety and well-being of humans, animals and ecosystems, we now had a report with the calculations of what was required. And the answer could be summed up in three words: breed fewer animals.

Interestingly enough, the economic analysis accompanying the citizens' initiative also put an end to a stubborn myth that the Netherlands had to be the world's butcher and dairy farmer. More than 70 per cent of all meat and dairy products are produced for the export market. The Hague is actually quite proud of this, but it doesn't make sense when you look at it. The Netherlands is a small country. Land is scarce and expensive, and the labour costs are high. Mass production at rock-bottom production costs - the principle fuelling the world market - is simply not an option for Dutch farmers. Farmers in countries with far more land and lower

labour costs will always produce more cheaply in the long term. Not only for the environment but also for a healthier source of income for the farmers themselves, it's therefore important to say goodbye to mass production for export and transition to small-scale production for the local market.

The initiators of the citizens' initiative were afraid that a 70 per cent reduction in livestock numbers would be impossible to achieve, so they suggested 50 per cent to the House instead. The House rejected the initiative. Which was really unfortunate because that reduction is unavoidable. And the longer you wait, the more challenging and more expensive this reduction will become. The citizens' initiative from 2007 had at least given time for the farmers to make the transition. Parties that refused to carry through the proposal did the environment a great injustice and robbed the farmers of precious years, thirteen years, that they could have used to transition to a sustainable food production system in the long term.

Fewer animals, less manure, fewer problems. I have often opened countless debates about the manure situation in the Netherlands with these words. With Veerman, Verburg, Dijksma, Van Dam, and Schouten, anyone who had anything to say about agriculture. Our current minister's reply is a variation on the theme of, 'fewer animals, I find that too easy.'

I'm still confounded by this reaction. The minister apparently prefers that things be difficult. The manure problem has been the thorn in the side of every Minister of Agriculture for over 30 years. Everything has been tried to find a solution. That is, everything except for making sure that far less manure is produced in the first place.

'It continues to be a recurring problem,' the Court of Audits concluded for the umpteenth time in 2019. Every five years, the Court of Audits evaluates to what extent the government has succeeded in making the livestock industry more sustainable and tackling manure pollution. The most recent report was published in

2019. The conclusion was damning. The cabinet does not have the nitrogen approach under control. Because the number of animals was not to be decreased, farmers were stuck with compulsory investments in new techniques and constantly changing regulations. A reporter from the current affairs programme *Nieuwsuur* asked Francine Giskes from the Court of Audits the question: 'So this policy has been detrimental to both the environment and the farmers?' Giskes answered: 'I suppose you could say that, yes.'

And that is precisely what makes our agricultural policy so tragic. As long as you continue to avoid the crux of the matter, nobody wins, except for the Rabobank, the animal feed industry, the construction companies who build the stalls, and the slaughterhouses. Those are the only stakeholders that benefit from large numbers of animals in the livestock industry and they earn a pretty penny while they're at it. The taxpayer pays for the excessive amounts required to pay off businesses – payments that would have been unnecessary if only we had changed course earlier and refused to issue so many unsustainable permits to cattle breeders. Anyone who wants to know how diligent parties are with government funds and hard-earned taxpayers' money shouldn't look at the calculations in the election programmes but at the agricultural section.

And, find out if parties are prepared to find a communal solution to the problem. Manure is, after all, not only an environmental issue. In 2016, the House of Representatives was visited by two researchers from Utrecht University and the RIVM. They presented their findings on the dangers of factory farms for the health of the people living nearby. It concerned particulate matter, endotoxins and the transmission of zoonotic diseases. The Q fever bacteria was the most distressing example of such a disease, as COVID-19 was still unknown at the time. The researchers suggested numerous measures for mitigating the risks somewhat. During that conversation, the question was raised whether it would help if we kept fewer animals. The researchers were lost for words for a

moment before replying that this was so obvious that they hadn't bothered to include it in their findings. We could have thought of that ourselves.

Hear, hear. Fewer animals means fewer problems - in every respect. It is time for the change of course that was announced 20 years ago but had never been implemented. Nobody is waiting for another vision with a politically correct text about how the current agricultural system is doomed to fail unless we do something about it. The closed-loop cycle paper from Minister Schouten is just another empty shell, and the new nitrogen approach has once more been dubbed by the experts as a 'farce'. Schouten and the VVD, CDA, D66 and Christian Union coalition have wasted another four precious years.

But there is good news as well. From a model study published in 2020 in the scientific journal *Nature*, the decline of our biodiversity can still be reversed. We can achieve that if we decrease the amount of meat we eat and the food we waste by half. The more plant-based foods we eat, the better our environment can recover and the greater the chance that we can prevent ourselves and our loved ones from falling prey to future pandemics. Plant-based alternatives to meat, fish and dairy products are literally popping up everywhere like mushrooms, and more and more people are choosing to invest their money in something other than the livestock industry. The vanguard is snowballing, the back-benchers are declining. Anyone who wants to be able to say: 'I was a vegan before everyone else started doing it!' has to hurry.

In an extensive opinion piece in The Guardian in April 2020, Jonathan Safran Foer and Aaron S. Gross wrote that 'we have to wake up' because: 'Factory farms are breeding grounds for pandemics.'

Gross is a professor at UC San Diego. Jonathan Safran Foer is an author known for his lauded book *Everything Is Illuminated, Extremely Loud & Incredibly Close*, but he has also taken a firm stance against the meat industry with his books *Eating Animals*

(2009), and *We are the Weather: Saving the Planet Begins at Breakfast* (2019).

In their article in *The Guardian*, they wrote: 'Imagine if our military leaders told us that almost every terrorist in recent memory had spent time in the same training camp, but no politician would call for an investigation of the training camp. Imagine if we knew that those terrorists were developing weapons more destructive than any that has been used, or tested, in human history. This is our situation when it comes to pandemics and farming.

(…) In the case of farmed animals, though, the lack of public understanding has allowed unscrupulous corporations to move policy in exactly the wrong direction. Across the globe, corporations have succeeded in creating policies that use public resources to promote industrial farming. One study [Foer and Gross refer here to the 2019 Growing Better report from The Food and Land Use Coalition] suggests that the public is providing $1m per minute in global farm subsidies, overwhelmingly used to prop up and expand the current broken model. The same $1m a minute that promotes factory farming also increases pandemic risk. (…) This leads to the most pertinent question: What can we do? The link between factory farming and increasing pandemic risk is well established scientifically, but the political will to curtail that risk has, in the past, been absent. Now is the time to build that will. It really does matter if we talk about this, share our concerns with our friends, explain these issues to our children, wonder together about how we should eat differently, call on our political leaders, and support advocacy organisations fighting factory farming. Leaders are listening.'

Gross and Safran Foer's analysis is correct, but so is their conclusion: 'Changing the most powerful industrial complex in the world – the factory farm – could not possibly be easy, but in this moment with these stakes it is, maybe for the first time in our lifetimes, possible.'

Uplifting words!

10

COFFEE TIME AT THE EVERS FARM

It is just a phrase in the opinion piece from Jonathan Safran Foer and Aaron Gross. You would have almost missed it: in the case of farmed animals, 'the lack of public understanding' has allowed unscrupulous corporations to move policy in exactly the wrong direction. That sounds a bit like an accusation. Are we really that ignorant? And is that our fault? In any case, it raises the question: what do we actually know about animals in factory farms?

It is one of the main mottos of the Minister of Agriculture, irrespective of who is performing that function. They all feel that it is 'very important that consumers know where their food comes from.' The question is always, what do they mean by that? Do they see it as their duty to ensure that the customer is fully and accurately informed? Or is it our task as 'consumers' to do our homework? Or is it just a handy incantation to avoid lengthy and awkward discussions about the fate of animals?

In 2018, the Ministry of Agriculture decided to employ modern communication channels to show the public what goes on in the world of agriculture in the Netherlands: a YouTube series with the title 'Boeren' (Farmers). The first video was posted on 26 April. We hear the strains of some friendly-sounding background music and see a couple of fine sows running with their piglets through the forest, with noses black from rooting around in the ground, long tails, and bright eyes. The animals seem to be in perfect health. Forest hogs.

Two months earlier, a Dutch pig rights association, *Varkens in Nood*, published images made with a hidden camera in pig stalls in Noord-Brabant and Limburg. The images portrayed disgusting pens

stuffed to the brim with pigs covered in wounds, abscesses and infections, partly eaten body parts, neurological damage and dead piglets.

Spot the differences. The Ministry of Agriculture's video portrayed the handful of pigs that were kept in the great outdoors. The pigs *Varkens in Nood* showed were porkers, pigs intended for the slaughter. Almost 90 per cent of all pigs in the Netherlands are forced to spend their lives under these conditions: packed together in concrete pens without fresh air, with missing body parts and with no opportunity to root around or express their natural behaviour in any way. *Varkens in Nood* published a report along with the images with shocking figures about the daily reality in the pig sector. Half of the pigs suffer from lung infections or even more painful pleurisy. 70 per cent have cartilage problems. Many pigs have chronic diarrhoea, wounds, abscesses, half-eaten ears or cut-off tails. Because of these nightmarish conditions, pigs experience high levels of stress and even resort to cannibalism. If a pig is unfortunate enough to have an open wound, other pigs will nibble away at what is already an excruciating injury. And this is the system in which more than 12 million pigs live in the Netherlands.

The minister was shocked by the images but quickly replied that she could not judge 'how representative' these were for the situation in the Netherlands. That's odd. The minister knows that the conditions in factory farms are so wretched that some 30 million animals don't even make it out of the stable alive every year. And those animals didn't just die for no reason: there was always illness or injury involved. When you know that every year 30 million animals die in the stall, you also know that a far greater number of animals fall sick or are injured on an annual basis.

The minister's reaction is typical of a well-known pattern. Instead of admitting to or showing how animals suffer in the livestock industry, they do the opposite: they portray a romantic fairy-tale and leave out the more painful truths. And when images appear that show how things really are, they resort to calling into question

the authenticity and representativeness of those images. Or condemning the fact that those images were made.

The pig farming sector reacted angrily to *Varkens in Nood*'s publications. Ingrid Jansen, chair of the Producers Organisation of Pig Farmers - a sector that is regularly criticised by the Advertising Code Committee for misleading messaging - said that the images sent an 'incomplete message'. The irony was apparently lost upon her.

She also said: 'The pig farmers were shocked and disappointed that these images were obtained in this manner. Farm pens are open to everyone in consultation with the pig farmer. If you make an appointment, you will also be given the most pertinent information by the pig farmer himself. We can and want to show you what the situation really is like on our farms. The press and members of the public are welcome to come and see how a pig farmer cares for his pigs every day.' This invitation is not new, she added. 'We have nothing to hide as a sector, and we are committed to animals' health and well-being. Come and take a look!'

We wanted to. In the summer of 2018, I wanted to pay a working visit with my policy officer to see the reality in the mainstream pig farming industry with our own eyes, ask questions about the animals (and their welfare), and take pictures. But apparently, that wasn't what they intended when they invited us to come and take a look. We repeatedly sent in our request to Jansen's organisation (the Producers Organisation of Pig Farmers, or POV) to make an appointment, but we were refused. We were only welcome for a working visit at the office or at a viewing stall to talk about 'important themes for the pig farming industry' and have a look at a model stall. We were not allowed to see the pigs themselves or how they truly lived, and we certainly weren't allowed to take any pictures. The press wasn't welcome either.

Meanwhile, our policy officer Elleke Draaisma was also trying to get appointments at slaughterhouses. We also wanted to see the daily reality with our own eyes and report our findings there. VION's

general manager had once invited me to come and take a look in the slaughterhouse. But when we wanted to take him up on his offer, it turned out that the invitation was not really serious. We were not welcome - and neither was the press.

After the investigative journalists at *RTL Nieuws* had sifted through tips from whistle-blowers, dredged up revealing documents, and published stories (with undercover images) of what really happened in slaughterhouses, *NOS op 3*, a Dutch current affairs programme, also wanted to shoot an item on the subject. They were not granted access. Spokesman Dé van de Riet from the Central Organisation for the Meat Sector (COV) told the NOS: 'The idea that abuse takes place in Dutch slaughterhouses is incorrect.' According to him, rules and regulations were being adequately followed. But when we wanted to capture that on camera,' the NOS writes, 'the doors of the slaughterhouses remained closed.' 'Images of the slaughtering process and sedation are still sensitive subjects,' Van De Riet explained. The slaughterhouse would like to be transparent in their process, but they're afraid that the images would start living a life of their own. *NOS op 3* made - instead of showing actual images - an animation in which the animals were replaced by red dots.

Eighteen months later, *RTL Nieuws* published images made undercover in the most modern slaughterhouse in Europe: Westfort in Ijsselstein, producers of 'sustainable meat'. Organic pigs were slaughtered here with the Better Life label, a Dutch label that monitors animal welfare for the production of animal products. The images show how pigs are brutally beaten out of the lorries, crippled pigs are pulled by their tails, and sick animals are hounded into their stalls.

Minister Schouten and her many predecessors state that people should know where their food comes from but fail to follow through. The sector suppresses anything that cannot see the light of day and posts misleading images of happy hogs in hammocks - with sunglasses, pillows, palm trees, the whole hog - on livestock transports. As if the animals are going on holiday to Spain instead

of a death ride to the slaughterhouse. Unfortunately, many journalists also take the path of least resistance. In the summer of 2020, Dutch writer Tommy Wieringa had had enough when yet another reporter from the newspaper *NRC* (in which Wieringa writes a weekly column),'bewitched by the landscape and the farmers' in Twente, had written a soft-sappy tale from the farmer's perspective. 'Maybe the reporter should also have taken a look in this farmer's henhouse,' Wieringa wrote in his column on 27 June, 'where he keeps 15,000 broiler breeders, the hens that produce eggs from which meat-producing chickens are hatched. Such hens spend their entire lives on a water ration because otherwise the manure and the ground become too soggy, causing leg and airway conditions.' Wieringa described how the animals were kept thirsty for most of the day and provided several other relevant facts that the reporter should have held against the farmer's story. 'Yes, I'm sure the coffee tasted great at the Evers farm, but you would expect a reporter to expand his wisdom, even if according to Ecclesiastes 1:18, that wisdom would bring much sorrow with it.'

Instead, we rely on brave people who let themselves be employed by slaughterhouses, factory farms or catchers and film what goes on there daily. And we rely on the media that show their images and tell their stories, because they are out there, thankfully. Thanks to the images supplied by these undercover employees, we can see how a label or certification can't protect chickens and farmers from the fear, pain and stress of factory farms or slaughterhouses. We can also see how pigs are far less well-off in reality than on the images that the sector likes to distribute to the media. And we can see how roughly and brutally chickens and ducks that are 'ripe for the slaughter' are caught and treated before being transported to the slaughterhouse. Animals who look like they aren't going to make it are kicked to death or bashed against the wall. The Dutch animal rights group, Animal Rights, published video footage of a new employee being instructed on the best way to get chickens and ducks into the transport crates: 'The best thing you can do is throw them in from a distance.' It is as shocking as it is sobering because

as soon as you see the images, you know this is how it's actually done. Did we really think that 20,000 chickens would be picked up one at a time and gently placed in a crate? And the images don't show anything that 'must be severely punished' to solve the problem. It is simply the reality behind how food-producing animals are treated that perhaps hadn't occurred to us before.

In May 2018, Dutch television presenter Yvon Jasper was at an organic dairy goat farm with the popular Dutch television programme *Boer Zoekt Vrouw* (the Dutch version of *Farmer Wants a Wife*). Yvon helped with the 'kidding': the goats on the farm were about to give birth to their kids. The Netherlands watched along tenderly until images appeared of how the newly born goats were torn away from their mother by Yvon and placed in a cardboard box. 'The box gives the newborn kids a feeling of security,' she explains to the viewers. It didn't help. People everywhere were shocked that newborn goats were taken away from their mothers to be set aside in a cardboard box. People who had always bought (organic) goat cheese had never seen or heard anything about it before and refused to accept it. I pointed out this generally shocked reaction to Minister Schouten and asked her what she would say if someone asked her where her organic goat-milk products came from. Her answer was: 'I would say that it comes from goat farms where farmers spend every day of the week providing the best possible care for their animals, intrinsically motivated by the fact that healthy animals are the key to healthy businesses.'

If this had been a quiz, the answer would definitely have been wrong. What the minister should explain to anyone who has questions about where dairy products come from is: 'Just like with humans, female mammals can produce milk. But just like with us women, milk production doesn't happen without reason. Offspring need to be born first. That's why the female animals in dairy farms, such as goats and cows, are impregnated every year. To get the milk production going and keep it going, they need to give birth to one or more young every year. The calves and kids are taken away from their mothers almost immediately after birth because the milk is

meant for human consumption. The calves and kids are kept apart. Some of the female young are kept on the farm to become dairy cows or goats. The rest of the kids and calves are taken away to be fattened up. And after a few months to a year, they are slaughtered, often without sedation. The dairy cows and dairy goats are eventually slaughtered too.'

That the ministers are not willing to explain what animals undergo in factory farms says everything about how uncomfortable they feel about the subject. If you are truly convinced that there is nothing wrong with treating animals this way, then you would be open about it. For the time being, that discomfort is deeply hidden away and glossed over with a romanticised version of reality. In November 2019, the ministry of Agriculture posted the 10th video from the 'Boeren' series on YouTube. The story of a goat farmer. Not a word about separating young from their mother, and not a kid in sight.

The 'lack of public understanding' that Safran Foer and Gross were referring to is primarily due to the government and the sector that claims it has 'nothing to hide'. The documentary *Dominion*, which I ultimately showed together with executive producer Tamasin Ramsay at Leiden University, describes the worldwide animal farming industry as 'an empire built on secrecy'. We owe it to the animals to work up enough courage to see through the romanticised portrayal of the livestock industry and learn what animals really have to go through to produce our meat, eggs and dairy products. Now more than ever we are in a position to change the most powerful industrial complex in the world. And to do so, we must continue to fight that secrecy, name the facts, and show the images. The shame is not in the making of these images but in the images themselves.

II

RUSSIAN ROULETTE

David Quammen, journalist and author of the prophetic book *Spillover* (2013) warned ten years ago that a new coronavirus could originate at a Chinese wet market and wreak worldwide havoc. Quammen has been monitoring zoonotic diseases for years through his work for organisations such as National Geographic. He travelled with biologists who visited the tropics in search of pathogens, followed in the footsteps of virus hunters in Bangladesh and researchers in Congo looking for gorillas in the hope of finding antibodies against Ebola. And, a dubious honour for the Netherlands: his reporting also led him to the Brabant village of Herpen, which was heavily hit by Q fever in 2007.

When the coronavirus struck, Quammen changed within a few months from a prophet of doom to a Messiah. He was certainly not the first to warn us that destroying nature posed incredible health risks for humans, but he was one of the first who could explain it to a broader audience. Thanks to Quammen, we could clearly see how viruses spread in the 'wild', and how when humans and animals come into contact, these viruses could jump from one to the other. And when one of those viruses jumps from one human to another, there is no herd immunity, and the virus has free rein. Don't mess with nature, in other words. That has also always been one of Marion Koopmans' main messages, long before she became the country's leading virologist.

It's a message that in past years has always been drowned out by the din of day-to-day crises. Not only in the Netherlands – short-term thinking dominates politics in the entire Western hemisphere, with an almost blind focus on the short-term interests of humans. It is

an anthropocentric paradigm that, paradoxically enough, frequently loses sight of the real long-term interests of humans: a healthy and stable living environment with fresh air for breathing, clean water for drinking and healthy soil in which to grow our food. You could call the long-term interests of people a vulnerable interest that quickly loses out against short-term economic gain, just like all those other vulnerable interests: those of animals and the environment. It is easy to see how these interests are closely interlinked. And that, for our own wellbeing, it is more critical than ever to protect the interests of the most vulnerable parties against the alleged right of the strongest. Harmony between humans and animals, between humans and the environment, and amongst humans themselves instead of a battle between people with the mentality reminiscent of old ABBA hits: 'The Winner Takes it All' (1980), and 'Money, Money, Money' (1976).

The importance of a healthier relationship with all our fellow beings and the environment is also apparent in Quammen's work as he explains in great detail how everything in nature is interlinked. Humans do not have the power, or rather should not have the power, to decide which species should serve us and which species we should be afraid of. Quammen is right when he says that we should embrace the entirety that is nature and that people should live in harmony with animals and the environment whenever they can. That means that it's in our best interest to leave the bat alone and not disturb its habitat, for example. And if we do that anyway and subsequently come into contact with life-threatening diseases, that's the human's fault, not the bat's fault.

Human-centric thinking places humans above nature instead of seeing humans as part of that nature. That gives rise to significant problems, problems that are most visible in the livestock industry. Not only do animals in agriculture have short and miserable lives that end abruptly and brutally, but during that short period, animals have to literally stuff themselves until they can eat no more. That food has to come from somewhere.

One of the fundamental problems of our food system is western addiction to animal protein. More than enough plant-based protein is cultivated to provide the entire world population with healthy and sustainable food, but that doesn't happen. Most of this protein ends up in the stomachs of billions of farm animals. The UN climate panel, the IPCC, calculated that the 'yield' of proteins from animals is 95 per cent less than the protein fed these animals. 'Our food producers', as factory farms are called, do exactly the opposite of producing food. Livestock industries are sources of food waste. In a world where severe malnutrition is still a reality for some people, such facts should prompt politicians to implement a radical decrease in livestock. But any political will to face the many problems that factory farms cause has been limited, until now, to paper ambitions to make the livestock industry 'more sustainable'. The closed-loop cycle paper from Minister of Agriculture Schouten is based on the assumption that you can continue to breed and kill animals for food production with just a few adjustments.

Scientist Joseph Poore from Oxford University, who specialises in the environmental effects of agricultural practices and the solutions to avoid these effects, wanted to know what we had to do to create a 'sustainable livestock industry.' Halfway into his research, he was so shocked by his findings that he decided to remove animal products from his diet. The numbers revealed that animal products generate only 18 per cent of the calories and 37 per cent of the protein worldwide, but that they require 83 per cent of the world's agricultural lands. A massive waste of precious agrarian soil, in other words. Each year, a thousand million kilos (!) of animal feed is produced, valued at 400 billion dollars. According to the University of Minnesota, if we were to stop producing animal feed and biofuel, we could feed four billion extra mouths. Joseph Poore was hunting a mirage: sustainable livestock farming doesn't exist. Poore showed that a plant-based diet was by far the best way for individuals to reduce their own ecological footprint.

At this point, it's good to address a common misconception and one that is often deliberately disseminated. By far, the largest part

of the worldwide soybean production, between 85 and 90 per cent, is destined for animal consumption, not for direct consumption by people. The soybeans that are not eaten by animals go to humans, not the other way around. Factory farms are a goldmine for the soybean industry. It's animal feed farms such as ForFarmers, known as the tractor protests' main sponsor, who earn billions by supplying feed for the livestock industry, destroying the environment in South America and elsewhere across the world in the process.

The American biologist Rob Wallace, an advisor for the American CDC, explains in his latest book, *Dead Epidemiologists: On the Origins of COVID-19*, that the neoliberal free-trade model - in which the animal feed industry plays a role - has endangered our health. It is the investments in South American animal husbandry that ensure broad swathes of Amazon rainforest and the Cerrado savanna are lost forever. Not only do the cows in Brazil and Argentina need meadows to graze, but other farm animals also rely on animal feed produced on land that was once rainforest. Wallace calls for an immediate halt to the deforestation of these lands. The indigenous inhabitants and small farmers who practice the type of agroecology that helps preserve the rainforests are chased away. When large agricultural corporations travel into the rainforests, native inhabitants and small-scale farmers are forced to fell trees deeper in the forests. Humans are left with no choice but to interfere with nature even further, a process that keeps repeating itself.

The Dutch Ministry of Foreign Affairs is indifferent to Rob Wallace's message. Officials from the ministry played a crucial role in the - as of yet incomplete - construction of the so-called 'soybean route' in Brazil: thousands of kilometres of roads and railways straight through the heart of the Amazon rainforest linking Brazilian seaports with the soybean fields lying deep in the rainforest. The over 120 billion kilos of soybeans - most of which is used for animal feed - that Brazil produces each year must be transported, of course. And that requires extensive infrastructure.

It's a death knell for the Amazon rainforest because, apart from the deforestation caused by the soybean fields and roads and railways themselves, deforestation experts believe this paves the way for continued deforestation. Roads and railways through the Amazon seem to have a magnetic effect on new economic activities such as mining, logging, and animal husbandry. It's a downward spiral of highly destructive short-term thinking.

In 2018, investigative journalist Karlijn Kuipers brought to light the fact that Dutch officials have been actively involved in constructing the soybean route since 2008. The Dutch embassy organised dozens of meetings and networking events and offered strategic advice. Dredgers Boskalis and Van Oord were given enormous contracts to dredge the seaports in Brazil. Engineering company Arcadis also got their share. The Ministry of Foreign Affairs was the harbinger for Dutch big business. And the Minister of Foreign Trade and Development Cooperation, Sigrid Kaag (D66)? She had no qualms about it. In response to Kuiper's publications, she admitted that the Dutch government facilitates and finances these types of lobby meetings. And that the Dutch government, as the icing on the cake for the Dutch export machine, also promotes the continued intensification of agricultural practices in Brazil.

It is a surrealistic situation. Every Dutch politician says that they are against deforestation of the rainforest, as long as it doesn't cost Dutch multinationals anything extra. Minister Kaag knows that the global production of soybeans and palm oil is responsible for large-scale deforestation. She knows that Dutch companies actively contribute to this deforestation, and she knows that the Netherlands is Europe's largest importer of these products. But trade is more important. In D66's cosmopolitan world view, neoliberal free trade reigns supreme. The problems that arise are tackled with paper ambitions to 'increase sustainability' through voluntary 'round-table discussions' where environmental groups may state their case, but multinationals who will do anything to preserve the status quo have the final say. The deforestation, human rights violations, and substantially increasing the risk of a new

zoonotic pandemic continues with impunity.

The neoliberal free-trade model's victims are not only the environment and the animals, but Dutch farmers are also suffering from its effects. In 2020, protesting farmers blocked multiple, large-supermarket-chain distribution centres. Although a lot could be said about the way they protested, they were absolutely right to shine a spotlight on the role of supermarkets. The margins the farmers earn have been kept under pressure for decades by unacceptable means. The Dutch media concern RTL calculated that a head of broccoli costs about a euro, of which only three to five cents goes to the farmer. Market leader Albert Heijn spends billions of euros on marketing, advertising and seducing customers but refuses to adequately compensate farmers, without whom supermarkets would cease to exist. In 2019, the Court of Audits reported that one in three Dutch farmers had an income below the legal minimum wage, despite subsidies from the EU. These figures are disturbing.

Potato farmer Koos Dekker touched on a sore point in 2019 when he spoke to RTL and immediately made clear that blocking the distribution centres was a targeted action: 'Farmers are at the bottom of the chain, so that's where they get their profits from. Consumers are used to fully-stocked supermarket shelves. They start to think about things when food is no longer available. And that's when the prices go up.'

Koos Dekker and his fellow farmers implicitly point out a fundamental inequality in our system. Wages are high in the Netherlands. Therefore, the Netherlands is a country where you will find relatively little labour-intensive production. The textile industry, for example, has moved away from the Netherlands. Too expensive.

Despite the relatively labour-intensive and therefore expensive nature of farming practices, the farmers have not moved away from the Netherlands. Thank God! One explanation is that the European market has historically always been relatively well-protected from

competition outside the European Union, mainly through import tariffs and relatively strict food safety regulations. These - fully justified - protection measures are the main reason why European farmers can continue to produce for acceptable profits.

But, over the past decades, that wall of protection has been and is still being broken down, stone by stone. And, just like protecting those farmers was a political choice, so is the disintegration of that protection. Through trade agreements with countries boasting a large agricultural sector, such as Ukraine, import tariffs are being lowered or scrapped altogether, and the food safety regulations are increasingly under pressure. Farmers outside Europe still produce far below the standards of European and Dutch farmers, as imperfect as our system may be. Think of the battery cages in Ukraine and the use of more potent and more toxic pesticides. Dutch and other European farmers are no longer allowed to use these pesticides, just as they are no longer allowed to house hens in battery cages. What they are allowed to do is watch helplessly as these less-regulated products are still being sold on the market because politicians in The Hague and in Brussels see free trade as the holy grail. CDA and VVD present themselves as the farmers' best friends in their protests against the environment. Yet, behind those farmers' backs, they close trade agreements that are more damaging to the Dutch agricultural system than any government restriction could ever be. D66 too, is a willing party in the promotion of free trade.

Faced with this increasing foreign competition, farmers only have two possibilities to deal with the situation under the current system: intensification and mass production. That means upscaling, automation, more pesticides, the import of cheap feed from South America, and so forth. Anything to suppress prices. Both environments across the globe and farmers' livelihoods suffer under the world market's harsh rules. And no one benefits from it because many farmers have precious little profit left at the end of the year, despite - or perhaps because - of their intensive farming practices.

Unfair competition from the world market is perhaps one side of the coin. Producing for that world market is the other side. The VVD, CDA, D66 and agricultural organisation LTO's focus on export has been disastrous in every way imaginable, including for our public health. Our agricultural system exports not only large quantities of potatoes and sugar but also pandemic risks.

In the spring of 2019, a market analysis from the Rabobank reported that Russia was having trouble keeping outbreaks of high-pathogenic bird flu under control. Countless animals were being culled on many Russian poultry farms. Such a report should cause alarm bells to go off with the Ministries of Health and Agriculture. But what did the Netherlands do?

The Netherlands produced 900 million 'hatching eggs' in 2019, of which 60 per cent were produced for the export market. And the large majority of those eggs were shipped off to… Russia. So while Russia was struggling to control high-pathogenic bird flu outbreaks and entire farms were culling their chicken population, the Dutch chicken meat-producing sector was sending enormous quantities of eggs to Russia to get the Russian factory farming system back up to speed as quickly as possible. The nightmare came back to us by return post.

The outbreak of high-pathogenic bird flu in late 2020 in the Netherlands was traced back to wild birds who had migrated with the virus. From Russia. The Dutch poultry farmers were in all states, Minister Schouten panicked, poultry was once again forced to be kept indoors. But nobody had thought a year earlier that exporting eggs with tiny chicks to hotbeds of high-pathogenic bird flu was about as smart as placing a powder keg next to a charcoal fire. Not even after the bird flu broke out: when the export of day-old chicks and hatching eggs ceased, Minister Schouten and the NVWA rolled up their sleeves to break down the trade barriers. 'Representatives from corporations and the Ministry of Agriculture are in intensive discussion at the highest level with Russia to keep the export going,' Food Agri Business wrote.

And it's not just eggs to Russia. The Dutch banks and agribusinesses helped with and profited from constructing one of the largest poultry farms in the world, the notorious billion-dollar enterprise MHP in Ukraine. Dutch pig stall construction companies eagerly accept commissions from Russia and China. The Netherlands is helping to set up an intensive dairy industry in Turkey. And as soon as a country closes its borders to Dutch products, Dutch officials react with lightning speed through 'diplomatic channels' to get the export going again. Pork to China, hatching eggs to Russia: the export machine must keep going, whatever the cost. The NVWA which, according to a recent study, is so understaffed that they cannot even fulfil their task of monitoring dangerous animal diseases, was asked by a straight-faced Schouten to make time to secure the export of meat, eggs and even more pandemic threats.

The complete lack of foresight shown by these kinds of decisions and lobbies makes clear that the current political system is not, or is barely, able to resist the call of dredgers, animal transport companies, stall construction companies and other short-term interest groups. Our leaders seem to be in their comfort zone when battling huge crises but are completely at sea when asked to think about the prevention of future problems.

The coronavirus crisis is simply a symptom of a much deeper-rooted systemic issue. This is not something that simply came out of the blue like Wopke Hoekstra's Black Swan, but the consequence of an outdated paradigm that brings people to trade animals caught in the wild at a wet market in Wuhan. And Dutch politicians to export eggs to Russia so a new pandemic can breed its way into society.

12

ZOOM OUT

When I started to think about writing this book, it was spring 2020, and the zoonotic disease SARS-CoV-2 had made it apparent that something drastic had to change in the way people related to animals and the environment. By the time I had finished this book, 2020 had come and gone, and the Netherlands was struggling even harder with the new COVID virus than it had been the previous spring - and the light at the end of the tunnel was still a very long way off. During the final weeks of 2020, the newspapers were filled with retrospectives on the year that COVID struck, reconstructions of the developments and the cabinet's response, and the lessons we had learned. Reina Sikkema, a researcher in the field of zoonotic viruses at the Erasmus MC said to the *Volkskrant*: 'Let's make one thing clear: the fact that we have SARS-2 does not mean that something else won't come along. Not much has changed. There are still a lot of animals, a lot of people, a lot of contacts. The chance that this will happen again is just as great as it was two years ago.' Marion Koopmans was asked by *Trouw* whether we could go back to normal anytime soon. 'We should not make that mistake,' she said. 'I hope people realise that we need to think about our own role in the rise of pandemics, that through climate change, deforestation and our way of life, viruses will be more likely to jump from one organism to the next.'

When these interviews appeared, three dangerous variants of the bird flu were spreading at break-neck speed through the European poultry industry. In the Netherlands, a significant number of farms had already become infected. Just fifteen minutes before I finished this book, a report came in that a turkey farm in Moergestel in Brabant had become infected with the high-pathogenic variant of

the bird flu. The NVWA had to cull all 18,000 turkeys, while in the 21 poultry farms within a ten-kilometre radius of the turkey farm, three million laying-hens were housed. It's frightening how we keep playing Russian roulette with the bird flu virus in the Netherlands, a virus that not only threatens to exterminate the lives of animals but also threatens the lives of people.

Back in April 2020, when we were still secretly hoping that we would spend our summers at a festival in a field somewhere, *Algemeen Dagblad* interviewed Ron Fouchier, professor of molecular virology at the Erasmus MC in Rotterdam and one of the world's most highly respected virologists. Fouchier is a man of fact, not opinion, and hates it when the two come together, so you will rarely find him appearing on talk shows.

The AD asked the virologist whether he was surprised that the COVID-19 pandemic had the world in its grip, causing public life to grind to a halt and claiming countless lives.

'No. We never know exactly which virus will hit us next. But that a pandemic was heading our way was no surprise. With the way we live and the way we treat animals, it was unavoidable that this type of virus would spread across the globe.'

The AD journalist mentions to Fouchier that we have a lot of animals in the Netherlands. 'Yes. We have an unbelievably large number of animals in the livestock industry, plus pets. That makes us susceptible to viruses. You can see it in our poultry farms that are plagued with bird flu viruses dozens of times each year. And then take our pig population, which is ridiculously high. If some strange infectious disease breaks out there, the consequences would be severe.'

So the intensive livestock industry could potentially be a threat?

'Absolutely. The Netherlands is full of hosts that can transmit a virus.'

In the year that COVID-19 paralysed the world, virologists were

primarily approached to give their views on the current virus. Nonetheless, scientists were thankfully also occasionally allowed to share their far broader knowledge of zoonotic diseases. The Dutch government was given immediate opportunities to act on these insights.

When the Dutch duck breeding industry, a sector that is highly susceptible to bird flu, ground to a halt as the export market fell away, it was the perfect opportunity for the cabinet to restructure the sector and reduce the risks of a future life-threatening mutation of the bird flu developing. The government failed to do so; the sector has gone back to breeding and killing millions of ducks once more.

When the export of Dutch hatching eggs to Russia came to a halt, the cabinet could have scratched their heads and asked themselves if it was a good idea to facilitate the development of poultry industries elsewhere. Instead, the cabinet did everything in its power to get the export going again.

And 2020 was the year in which the government was finally forced to answer the verdict from the Council of State that had suspended the nitrogen policy in May 2019. Halving the nitrogen emission levels, and with it, half the animals in the livestock industry, experts said, was the least that the government had to do to solve the nitrogen problem. It was the ideal opportunity to take the bull by the horns. And they failed spectacularly. As Minister of Agriculture Schouten promised during the farmers' protest on the Malieveld in 2019: 'We are not going to halve the livestock industry.'

The severity and the impact of the coronavirus crisis should have encouraged governments to reduce the risks of new pandemic outbreaks from the animal kingdom immediately and drastically. And to realise, in Marion Koopman's words, that we cannot afford to go back to normal. We are in big trouble because of our 'normal' way of thinking and lifestyle. As the world-famous anthropologist and primatologist Jane Goodall aptly said: 'It is our disregard for

nature and our disrespect of the animals we should share the planet with that has caused this pandemic.' The coronavirus crisis is a symptom of a dominant paradigm that is obsessed with short-term human interests and makes all other species subservient to that principle. The misconception that 'man is the measure of all things' has left us with a pandemic, a biodiversity crisis, and a climate crisis. In his retrospective column in *NRC Handelsblad*, Stephan Sanders pointed out the interconnectedness of human and non-human species and the need to drastically re-evaluate human imperialism over non-humans. 'Whereas in pre-COVID times I used to laugh it off, I am now seriously considering the Party for the Animal's views for the first time.'

In 2018, *NOS op 3* asked our national space hero André Kuipers why so many astronauts became climate activists. His answer came down to this: because we have zoomed out. Astronauts who have seen the Earth from a distance have seen how unique and vulnerable our planet is. We can't go anywhere else. Only the Earth has the conditions that make life possible, such as the right temperature, the right amount of oxygen, and circulating water. Astronauts have also seen how the ecosystems that keep the Earth's conditions in equilibrium are being severely damaged through human activity: the barren wastelands that used to be forests, the polluted oceans, the melting ice caps.'

When we stop indulging in navel-gazing and zoom out, we can see the big picture. And then we realise that humans are only a tiny and very vulnerable part of nature, linked with all other species and dependent on the ecosystem they are a part of. That's when we see that it's not only inappropriate to behave as if we're the only species who matter, but that we're sawing away at the evolutionary branch upon which we sit.

Professor in Evolutionary Ecology Louise Vet summed it up as follows: 'When you destroy and strip away the natural order of things, pave the way for your enemies and behave so recklessly, you're bound to get hurt.' In a speech to her professional peers in

April 2020, she said that across the globe, we were being made to face the harsh facts: ‘The end of the current ecologically, socially and economically untenable system.’ If we want to solve the root cause of our problems, we will need to change our perspective and leave our egocentric way of thinking behind us. We need a radical paradigm shift: one from a blind focus on short-term human interests to a long-term vision for a liveable Earth for all its inhabitants - humans and animals alike.

That long-term vision, professor Vet states, comes from nature itself. ‘Because the natural system on which we are fully dependent and of which we are a part has, with its 3.8 billion years of R&D, stood the test of time with flying colours. Diversity is the founding principle, together with risk mitigation, effectiveness above efficiency, closed-loop cycles, and the sun’s energy. Wise lessons. Voila. The only future-proof and sustainable economy is one that fits within the economy of our planet, one that doesn’t prey on our natural resources but contributes to its maintenance and recovery instead. Whether your work focuses on the energy transition, a circular economy, a sustainable food system or market transformation, all innovative ideas, technologies, and processes must be assessed against the economic blueprint of living systems. Nature as a teacher and economic mentor. Working with nature instead of against it.’

Louise Vet has hit the nail on the head. The only sustainable economy is a socially just economy that fits within the Earth’s capacity. Governments are addicted to economic growth, but infinite growth on a planet with finite resources is a costly illusion. Our economic system has run aground in every respect. Ecologically. In terms of public health. Morally too. We need to start structuring things differently. And we can. Around the world, we see a growing movement that calls for a radical change of course, with economists such as Kate Raworth, and political scientists such as Katherine Trebeck, initiator of the Wellbeing Economy movement. They argue for a ‘donut economy’: in other words, a wellbeing economy that no longer revolves around BNP

growth and shareholder profits but around social justice and a healthy planet.

There is also global pressure on governments to put a halt to the climate crisis. Greta Thunberg from Sweden is inspiring proof that you're never too small to help tip the balance. Greta has unleashed a global climate protest movement by simply standing in front of the Swedish House of Parliament one day in August 2018, all by herself. In Sweden too, the political system does far too little to combat climate change, and Greta would no longer accept that politicians were destroying the Earth and the future of young people with their fossil-fuelled policies. It was election time, all the politicians were busy with their own campaign speeches, but she just sat there with her home-made protest sign and made sure that climate was the main topic of election debates.

In October of that year, I met Greta when she visited a climate protest the youth division of the Party for the Animals had organised in front of the parliamentary building. I asked her if she wanted to take a look in the House of Representatives, and took her to see the plenary chamber. She was very shy, but she stood behind the speaker's chair. It was a Friday afternoon, and the House was not in session, so there was no one to listen to her. We did take a picture together, with her iconic sign 'SKOLSTREJK FÖR KLIMATET, and I gave her copies of our documentaries Sea the Truth and Meat the Truth.

Not soon after that, she addressed the United Nations. As Margaret Mead said: 'Never doubt that a small group of thoughtful committed individuals can change the world. Indeed, it is the only thing that ever has.' And it's sorely needed.

During the coronavirus crisis, governments held on to what scientists had to say about the virus. We heard many sighs from politicians who didn't understand why people didn't follow the restrictions the scientists advised us to follow. That is exactly the point that Greta Thunberg made to world leaders about the climate crisis. Science is very clear on the need to stop the emission of

greenhouse gases and restore biodiversity - so why are you not doing anything about it? Young people and adults alike deserve leaders that not only take the scientists seriously when a pandemic breaks out and crisis management is needed, but also when scientists warn that we must radically change course if we want to prevent future crises.

The tipping point in history that historian Philipp Blom spoke about has clearly arrived. We are on the threshold of great changes. If we want to come out on the right side of history, he argues, we need new narratives. The old narrative in which humans are placed above all other life on Earth and animals are literally plagued out of existence has led us to dire straits. That paradigm, the egocentric world view, is no solution for the biggest challenge facing our generation today: keeping our Earth habitable. But, when we say goodbye to that egocentric way of thinking, adopt the humility that befits us, and truly see that the interests of humans, animals and the environment are inextricably linked, we can make sure the scales tip the right way.

And the only thing we have to do is zoom out. Like an astronaut.